Envision Hawaii!

S 2090-1-U

dbed
DEPARTMENT OF BUSINESS
AND ECONOMIC DEVELOPMENT

The State of Hawaii
DATA BOOK

1988

A Statistical Abstract

1959

November 1988

This report has been cataloged as follows:

Hawaii. Dept. of Business and Economic Development.
State of Hawaii data book; a statistical abstract. Honolulu: 1967-.

Annual.
None published for 1969.
1972 edition accompanied by supplement.
Continues same series under Department's earlier name, Hawaii.
Dept. of Planning & Economic Development.

1. Hawaii-Statistics. I. Data Book.
HA4007.H356.1988

CONTENTS

Page

About this book 5
State map 6
Guide to tabular presentation 8
U.S. and metric weights and measures 9
Neighborhood statistics program area maps 23
Census tract maps 26

SECTIONS

1. Population 11
2. Vital statistics and health 63
3. Education 94
4. Law enforcement, courts, and prisons 112
5. Geography and environment 133
6. Land use and ownership 178
7. Recreation and tourism 191
8. Elections 247
9. Government finances and employment 267
10. National defense 296
11. Social insurance and human services 308
12. Labor force, employment, and earnings 321
13. Income, expenditures, and wealth 358
14. Prices 386
15. Banking, insurance, and business enterprise 401
16. Communications 428
17. Energy and science 440
18. Transportation 461
19. Agriculture 505
20. Forests, fisheries, and mining 529
21. Construction and housing 540
22. Manufactures 574
23. Domestic trade and services 588
24. Foreign and interstate commerce 623
25. Comparative national statistics 640

Bibliography 653
On-Line availability of Data Book tables to public 655
Index 656

This report was largely the work of the DBED Research and Economic Analysis Division, headed by Richard Y. P. Joun, Ph.D. It was compiled and edited by Robert C. Schmitt, State Statistician, with the assistance of Sharon Nishi, Emogene K. Estores, Karen Yamashita, and Bob Stanfield. The camera-ready copy was typed and proofread by Irene S. Fujimori, Judy F. Noda, Helen T. Nagafuchi, and Charlotte N. L. Chow. Stewart A. Wastell, illustrator in the Office of State Planning, drew the maps. Printing arrangements were handled by the DBED's Information Office.

Copies of this report may be obtained for $5.00 each from the Information Office on the 7th floor of the Kamamalu Building, 250 South King Street, Honolulu, or ordered from out of State by sending $15.00 per copy (postpaid) to the DBED Information Office, P. O. Box 2359, Honolulu, Hawaii 96804.

ABOUT THIS BOOK

The State of Hawaii Data Book: A Statistical Abstract is the standard official summary of statistics on the social, economic, and political organization of our island state.

In addition to serving as a reference, it is a guide to other sources of statistics.

The State of Hawaii State Data Book closely follows the organization and format of its counterpart, the Statistical Abstract of the United States, thus facilitating comparison of Hawaii and national data.

The State of Hawaii Data Book places the major emphasis on statewide data and less on counties, islands, urban places, and smaller areas. Source references for additional statistical detail are given in the introductions to the various sections and at the end of each table.

This is the 22nd such abstract published by the State of Hawaii. Earlier editions appeared in 1962, 1967, 1968, and annually beginning in 1970. Most of them are now out of print, but copies can be found in many libraries in Hawaii.

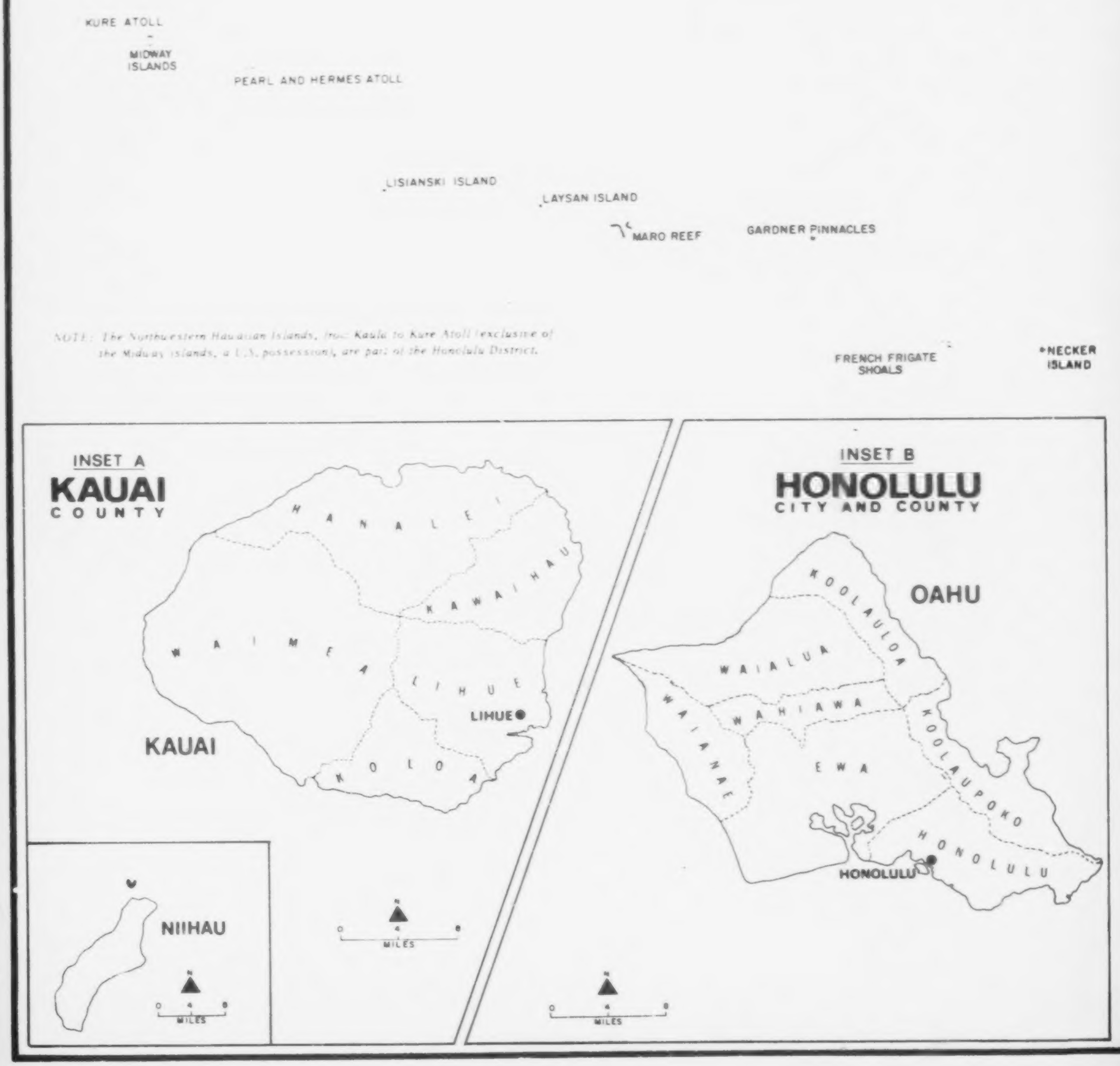
Many Federal, State, County, and private organizations cooperated with the DBED Research and Economic Analysis Division in the preparation of this book. They are credited in the source references that accompany the tables to which they contributed.

John Waihee
Governor of Hawaii

Roger A. Ulveling
Director of Business
and Economic Development

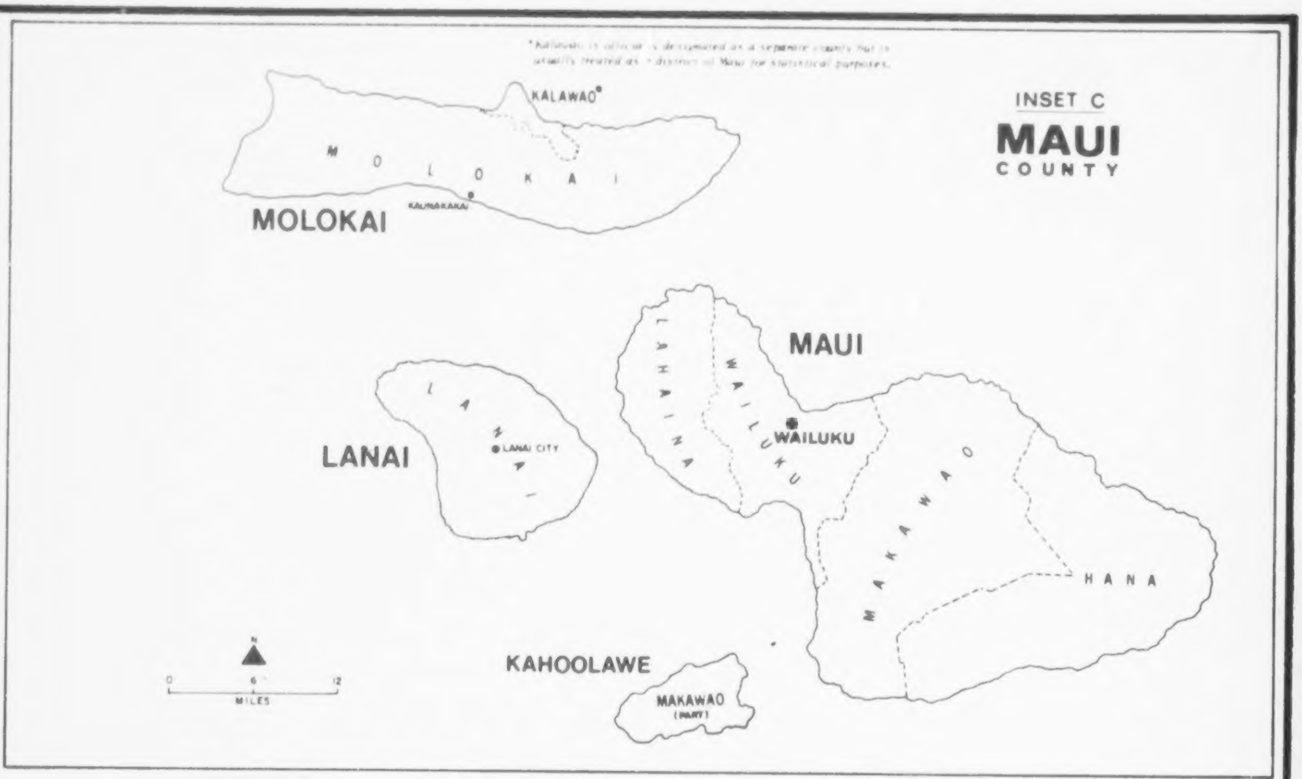
STATE OF HAWAII

COUNTIES and DISTRICTS

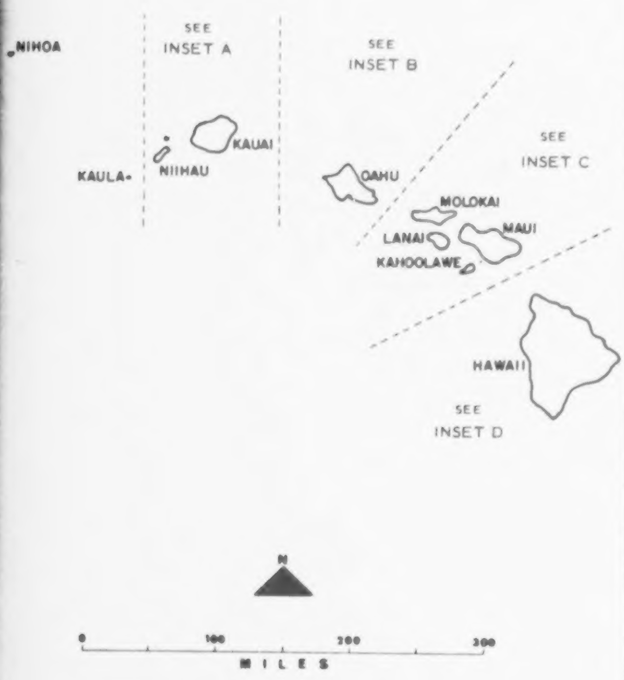


NOTE: The Northwestern Hawaiian Islands, from Kaula to Kure Atoll (exclusive of the Midway islands, a U.S. possession), are part of the Honolulu District.

KURE ATOLL
MIDWAY ISLANDS
PEARL AND HERMES ATOLL
LISIANSKI ISLAND
LAYSAN ISLAND
MARO REEF
GARDNER PINNACLES
FRENCH FRIGATE SHOALS
NECKER ISLAND
INSET A
KAUAI COUNTY
HANALEI
KAWAIHAU
WAIMEA
LIHUE
LIHUE
KOLOA
KAUAI
NIIHAU
N
0
4
8
MILES
INSET B
HONOLULU CITY AND COUNTY
OAHU
KOOLAULOA
WAIALUA
WAHIAWA
WAIANAE
EWA
KOOLAUPOKO
HONOLULU
HONOLULU


INSET C
MAUI
COUNTY
KALAWAO*
M O L O K A I
KAUNAKAKAI
MOLOKAI
MAUI
L A H A I N A
W A I L U K U
WAILUKU
M A K A W A O
H A N A
L A N A I
LANAI CITY
LANAI
KAHOOLAWE
MAKAWAO (PART)
N
0
6
12
MILES

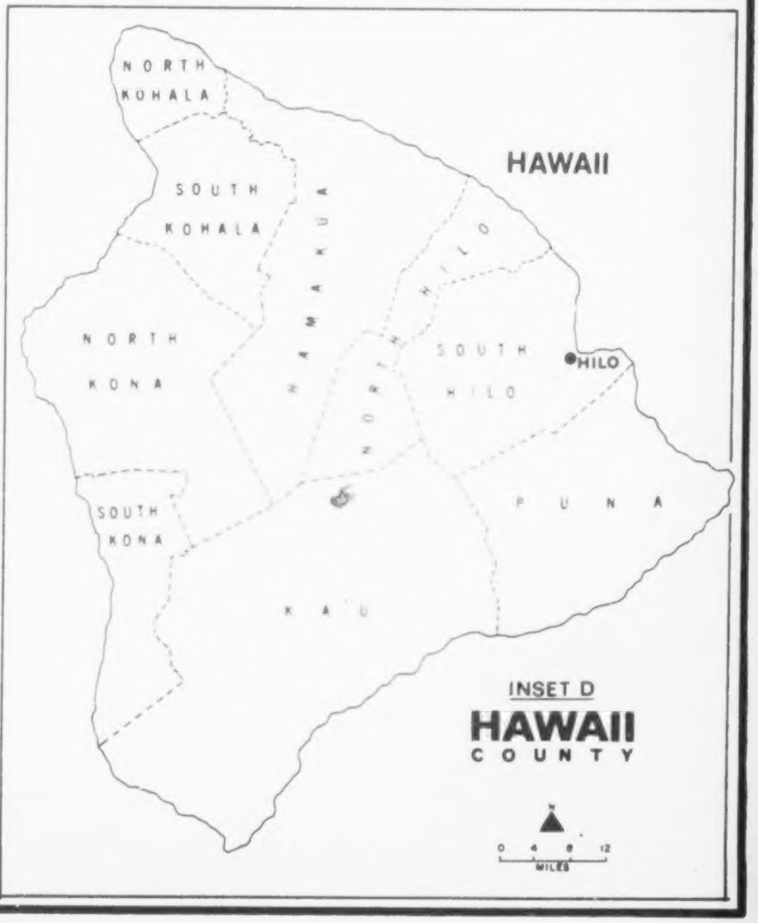
*Kalawao is officially designated as a separate county but is usually treated as a district of Maui for statistical purposes.


NIHOA
SEE INSET A
KAUAI
NIIHAU
KAULA
SEE INSET B
OAHU
SEE INSET C
MOLOKAI
MAUI
LANAI
KAHOOLAWE
HAWAII
SEE INSET D
N
0
100
200
300
MILES

STATE OF HAWAII

DEPARTMENT OF BUSINESS
AND ECONOMIC DEVELOPMENT

1987


HAWAII
NORTH KOHALA
SOUTH KOHALA
HAMAKUA
NORTH HILO
SOUTH HILO
HILO
NORTH KONA
SOUTH KONA
PUNA
KAU
INSET D
HAWAII
COUNTY
N
0
4
8
12
MILES

GUIDE TO TABULAR PRESENTATION

The tables in this report generally follow the principles of tabular presentation used by the U.S. Bureau of the Census in its annual publication, Statistical Abstract of the United States, and described in Bureau of the Census Manual of Tabular Presentation, published by the Bureau in 1950. These principles have been accepted by the Department of Business and Economic Development for use in its publications and recommended to all other State agencies for official use.

Headnotes immediately below table titles provide information important for correct interpretation or evaluation of the table as a whole or for a major segment of it.

Unit indicators ("In thousands," "In millions of dollars," etc.) are usually given as the first element of the headnote. In tables where several units are used, the unit indicators are generally given in the stub or in the column headings.

Footnotes below the bottom rule of tables give information relating to specific items, figures or symbols within the table.

Parallel vertical rules are used to the right of a total column to indicate --

(1) that the components which follow add to the total;
(2) in the case of derived figures, that the underlying data are additive to their total.

A dash (-) represents zero in references to absolute values. In rates and percentages, a zero (0) is used.

In many tables, details will not add exactly to the totals shown because of rounding.

Geographic coverage should be understood as Statewide, unless otherwise indicated in the table title, headnote, boxhead, or stub. All annual statistics should be understood as referring to calendar years unless otherwise indicated.

UNITED STATES AND METRIC WEIGHTS AND MEASURES

U.S.			to	Metric	Metric			to	U.S.
Length									
Inches	x	25.4	=	millimeters	millimeters	x	0.039	=	inches
Feet	x	0.305	=	meters	meters	x	3.281	=	feet
Statute miles	x	1.609	=	kilometers	kilometers	x	0.621	=	miles
Area									
Sq. feet	x	0.093	=	sq. meters	sq. meters	x	10.764	=	sq. feet
Acres	x	0.405	=	hectares	hectares	x	2.471	=	acres
Sq. miles	x	2.589	=	sq. kilometers	sq. kilometers	x	0.386	=	sq. miles
Volume and capacity									
Cubic feet	x	0.028	=	cu. meters	cu. meters	x	35.315	=	cu. feet
Cubic yards	x	0.765	=	cu. meters	cu. meters	x	1.308	=	cu. yards
Fluid ounces	x	29.573	=	milliliters	milliliters	x	0.034	=	fluid ounces
Quarts (liq.)	x	0.946	=	liters	liters	x	1.057	=	quarts (liq.)
Gallons (liq.)	x	3.785	=	liters	liters	x	0.264	=	gallons (liq.)
Mass									
Ounces (avdp.)	x	28.350	=	grams	grams	x	0.035	=	ounces (avdp.)
Pounds (avdp.)	x	0.454	=	kilograms	kilograms	x	2.205	=	pounds (avdp.)
Hundredweight	x	45.359	=	kilograms	kilograms	x	0.022	=	hundredweight
Short tons	x	0.907	=	metric tons	metric tons	x	1.102	=	short tons

Miscellaneous conversions
1 statute mile = 5,280 ft. = 1,760 yards
1 acre = 43,560 sq. feet
1 square mile = 640 acres
1 short ton = 2,000 pounds

Continued on next page.

UNITED STATES AND METRIC WEIGHTS AND MEASURES -- Con.

Fahrenheit	to	Celsius	Celsius	to	Fahrenheit
Temperature					
100 °F		37.8 °C	40 °C		104.0 °F
90		32.2	35		95.0
80		26.7	30		86.0
70		21.1	25		77.0
60		15.6	20		68.0
50		10.0	15		59.0
40		4.4	10		50.0
30		-1.1	5		41.0
20		-6.7	0		32.0
10		-12.2	-5		23.0
			-10		14.0

Source: U.S. National Bureau of Standards, Special Publication 304a; Department of Geography, University of Hawaii, Atlas of Hawaii, 2nd edition (1983), pp. 218-219.

Section 1

POPULATION

This section presents statistics on the growth, geographic distribution, and composition of the population of Hawaii, and on the number and characteristics of migrants moving to and from the State.

Provisional estimates for 1987 indicate a resident population of 1,083,000. This total is well above the 1980 census count of 964,691 and the earlier counts of 422,770 in 1940, 154,001 in 1900, and 84,165 in 1850. These censuses and estimates include members of the armed forces stationed in Hawaii and their local dependents, a group making up 11.4 percent of the resident total when last surveyed. The 1987 de facto population--which included 134,000 visitors present on an average day in that year but excluded 16,000 residents temporarily absent--was 1,201,000. Almost three-fourths of the 1987 de facto total was on Oahu, giving that island a density of 1,498 persons per square mile. The population of the State is relatively young--the median age in 1987 was 31.5 years--and racially diversified. The major unmixed groups, based on a 1986 sample survey, were Caucasians (23 percent of the non-barracks, non-institutional population) and Japanese (also 23 percent). In addition, 31 percent were of mixed race, primarily part Hawaiian. There were approximately 345,000 households in the State in 1987, with an average household size of 3.02. Migration has been a major factor in the growth of the population: between 1980 and 1987, there was a net in-migration (excluding military personnel and dependents) of 48,000, accounting for 42 percent of the total civilian population growth during that time. Immigrant arrivals in fiscal 1987 numbered 6,800, mostly from the Philippines.

The principal sources for these data are the decennial population censuses conducted by the U.S. Bureau of the Census, the estimates developed annually by the Hawaii State Department of Health and Department of Business and Economic Development in cooperation with the Bureau of the Census, the Hawaii Health Surveillance Program conducted regularly since 1969 by the Department of Health, the ongoing series on visitors present and residents absent maintained by the Hawaii Visitors Bureau, and the U.S. Immigration and Naturalization Service tabulations on immigration. The Department of Business and Economic Development summarizes these data in two series of reports, both issued annually: The Population of Hawaii and Hawaii's Migrants. Earlier figures on population and migration are given in Historical Statistics of Hawaii, Section 1 and 3. Comparable national statistics on population and migration appear in Section 1 of Statistical Abstract of the United States: 1988.

Table 1.-- POPULATION: 1831-32 TO 1987

[Missionary censuses for 1831-32 and 1835-36, Hawaiian government censuses for 1850-1896, U.S. government censuses for 1900-1980, and official estimates for 1876, 1944, and 1987. Data through 1896 are on a de facto or unspecified basis; data for 1900 and later years are on a resident basis, and include armed forces stationed or homeported in Hawaii]

Date	Population	Percent change 1/
1831-1832	130,313	...
1835-1836	108,579	-4.6
1850: Jan.	84,165	-1.8
1853: Dec. 26 ..	73,138	-3.5
1860: Dec. 24 ..	69,800	-0.7
1866: Dec. 7 ...	62,959	-1.7
1872: Dec. 27 ..	56,897	-1.7
1876: Jan. 1 2/	53,900	-1.8
1878: Dec. 27 ..	57,985	2.4
1884: Dec. 27 ..	80,578	5.5
1890: Dec. 28 ..	89,990	1.8
1896: Sept. 27 .	109,020	3.3
1900: June 1 ...	154,001	9.4
1910: Apr. 15 ..	191,874	2.2
1920: Jan. 1 ...	255,881	3.0
1930: Apr. 1 ...	368,300	3.6
1940: Apr. 1 ...	422,770	1.4
1944: July 1 3/	858,945	16.7
1950: Apr. 1 ...	499,794	-9.4
1960: Apr. 1 ...	632,772	2.4
1970: Apr. 1 ...	769,913	2.0
1980: Apr. 1 ...	964,691	2.3
1987: July 1 ...	1,082,500	1.6

1/ Annual rate since the previous estimate or census, based on the formula for continuous compounding.

2/ Estimated population at 19th century low.

3/ Estimated population at World War II peak.

Source: Robert C. Schmitt, *Historical Statistics of Hawaii* (University Press of Hawaii, 1977), pp. 8-10; Hawaii State Department of Business and Economic Development, *Quarterly Statistical and Economic Report, 1st & 2nd Quarters 1988*, pp. 56-64.

Table 2.-- RESIDENT POPULATION, BY MILITARY STATUS: 1970 TO 1987

[Excludes visitors present but includes residents temporarily absent]

Year	Total resident population	Armed forces 1/	Civilian population		
			All civilians	Military dependents 2/	Not military dependents
1970: April 1 .	769,913	55,142	714,771	61,858	652,913
July 1 ..	771,600	53,800	717,800	57,800	660,100
1971: July 1 ..	801,600	50,800	750,800	62,200	688,700
1972: July 1 ..	828,300	52,000	776,400	66,200	710,100
1973: July 1 ..	851,600	58,100	793,500	70,300	723,200
1974: July 1 ..	868,000	57,500	810,500	68,300	742,100
1975: July 1 ..	886,200	58,800	827,400	63,700	763,700
1976: July 1 ..	904,200	57,800	846,400	67,000	779,400
1977: July 1 ..	918,300	56,500	861,800	65,000	796,800
1978: July 1 ..	931,600	58,300	873,300	61,100	812,200
1979: July 1 ..	953,300	57,900	895,400	64,500	830,900
1980: April 1 .	964,691	57,056	907,635	64,023	843,612
July 1 ..	968,900	57,900	911,000	64,100	846,900
1981: July 1 ..	980,200	56,600	923,600	64,300	859,300
1982: July 1 ..	997,600	54,900	942,700	66,700	876,000
1983: July 1 ..	1,018,600	55,200	963,500	66,300	897,200
1984: July 1 ..	1,036,000	57,300	978,700	67,100	911,600
1985: July 1 ..	1,051,500	56,400	995,100	64,300	930,800
1986: July 1 ..	1,064,700	58,100	1,006,600	66,200	940,400
1987: July 1 ..	1,082,500	58,100	1,024,400	64,800	959,500

1/ These figures are the estimates developed by the U.S. Bureau of the Census for use in population estimation. They differ somewhat from corresponding figures from other sources.

2/ Dependents living in Hawaii, regardless of location of family head.

Source: Hawaii State Department of Planning and Economic Development, Intercensal Population Estimates for Hawaii, 1940-1980 (Statistical Report 172, February 1, 1985), table 1; Hawaii State Department of Business and Economic Development, The Population of Hawaii, 1980-1986 (Statistical Report 201, September 21, 1987), table 2, as revised; Federal-State Cooperative Program for Local Population Estimates.

Table 3.-- RESIDENT AND DE FACTO POPULATION, BY RESIDENCE STATUS: 1970 TO 1987

Year	Resident population 1/		De facto population 3/		De facto-resident ratio 4/
	Total	Temporarily absent 2/	Total	Visitors present 2/	
1970: April 1 ..	769,913	10,300	796,500	36,900	1,035
July 1 ...	771,600	10,000	798,600	36,900	1,035
1971: July 1 ...	801,600	9,400	833,100	40,900	1,039
1972: July 1 ...	828,300	8,600	869,800	50,100	1,050
1973: July 1 ...	851,600	9,800	901,300	59,600	1,058
1974: July 1 ...	868,000	7,800	923,700	63,500	1,064
1975: July 1 ...	886,200	9,000	943,500	66,300	1,065
1976: July 1 ...	904,200	9,400	970,300	75,500	1,073
1977: July 1 ...	918,300	9,000	992,300	83,000	1,081
1978: July 1 ...	931,600	9,300	1,014,300	92,000	1,089
1979: July 1 ...	953,300	9,300	1,042,700	98,700	1,094
1980: April 1 ..	964,691	9,600	1,052,700	97,600	1,091
July 1 ...	968,900	9,600	1,055,800	96,500	1,090
1981: July 1 ...	980,200	11,600	1,064,500	96,000	1,086
1982: July 1 ...	997,600	14,500	1,088,300	105,300	1,091
1983: July 1 ...	1,018,600	11,500	1,115,200	108,000	1,095
1984: July 1 ...	1,036,000	16,100	1,138,600	118,700	1,099
1985: July 1 ...	1,051,500	18,600	1,149,600	116,700	1,093
1986: July 1 ...	1,064,700	17,200	1,180,500	132,900	1,109
1987: July 1 ...	1,082,500	15,700	1,201,000	134,300	1,110

1/ The resident population is defined as the number of persons whose usual place of residence is in an area, regardless of physical location on the estimate or census date. It includes military personnel stationed or homeported in the area but excludes persons of local origin attending school or in military service outside the area.

2/ Averages for 12-month periods centered on the estimate or census dates.

3/ The de facto population is defined as the number of persons physically present in an area, regardless of military status or usual place of residence; it includes visitors present but excludes residents temporarily absent.

4/ De facto population per 1,000 resident population.

Source: Hawaii State Department of Planning and Economic Development, Intercensal Population Estimates for Hawaii, 1940-1980 (Statistical Report 172, February 1, 1985), table 2; Hawaii State Department of Business and Economic Development, The Population of Hawaii, 1980-1986 (Statistical Report 201, September 21, 1987), table 3, as revised; Federal-State Cooperative Program for Local Population Estimates.

Table 4.-- RESIDENT POPULATION OF ISLANDS: 1940 TO 1980

Island	1940	1950	1960	1970	1980
State of Hawaii	422,770	499,794	632,772	769,913	964,691
Hawaii	73,276	68,350	61,332	63,468	92,053
Kahoolawe	1	-	-	-	-
Maui 1/	46,919	40,103	35,717	38,691	62,823
Lanai	3,720	3,136	2,115	2,204	2,119
Molokai	5,340	5,280	5,023	5,261	6,049
Oahu 2/	257,664	353,006	500,394	630,497	762,534
Kauai	35,636	29,683	27,922	29,524	38,856
Niihau 3/	182	222	254	237	226
Northwestern Hawaiian Islands .	-	14	15	31	31
French Frigate Shoals	-	14	(NA)	(NA)	4
Laysan Island	-	-	(NA)	(NA)	5
Kure Atoll	-	-	(NA)	(NA)	22
Other islands 4/	-	-	(NA)	(NA)	-
Midway Islands 5/	437	416	2,356	2,220	453
Johnston Atoll 5/	69	46	156	1,007	327
Palmyra Atoll 6/	32	-	-	-	-

NA Not available.

1/ Including Molokini, uninhabited.

2/ Including Sand Island (56 in 1970, 60 in 1980), Mokauea Island (12 in 1970, 11 in 1980), Ford Island (798 in 1970, 522 in 1980), and Moku o Loe (uninhabited in 1970, 16 in 1980). The combined total for Sand Island and Mokauea Island in 1960 was 36. These offshore islands were not reported separately in other years.

3/ Including Lehua and Kaula, uninhabited.

4/ Nihoa, Necker Island, Gardner Pinnacles, Maro Reef, Lisianski Island, and Pearl and Hermes Atoll.

5/ Not part of the Territory or State of Hawaii.

6/ Part of the Territory of Hawaii but not the State of Hawaii.

Source: U.S. Bureau of the Census, decennial census bulletins on number of inhabitants, census tracts, and block statistics, 1940-1980.

Table 5.-- RESIDENT POPULATION, BY COUNTIES: 1970 TO 1987

[Based on place of usual residence. Includes armed forces stationed or homeported in Hawaii and residents temporarily absent; excludes visitors present]

Date		State total	City and County of Honolulu	Hawaii County	Kauai County	Maui County 1/
1970:	April 1 ...	769,913	630,528	63,468	29,761	46,156
	July 1	771,600	631,600	63,800	29,800	46,500
1971:	July 1	801,600	654,600	67,000	30,900	49,100
1972:	July 1	828,300	674,900	70,000	31,900	51,500
1973:	July 1	851,600	691,400	73,900	32,900	53,400
1974:	July 1	868,000	707,600	74,000	32,600	53,800
1975:	July 1	886,200	718,600	77,400	33,400	56,800
1976:	July 1	904,200	728,300	80,700	34,900	60,300
1977:	July 1	918,300	737,000	82,800	35,500	63,000
1978:	July 1	931,600	742,600	85,900	36,800	66,200
1979:	July 1	953,300	756,000	89,400	38,100	69,700
1980:	April 1 ...	964,691	762,565	92,053	39,082	70,991
	July 1	968,900	764,800	93,000	39,400	71,600
1981:	July 1	980,200	768,400	97,000	40,600	74,100
1982:	July 1	997,600	778,600	100,200	41,900	76,900
1983:	July 1	1,018,600	793,200	102,700	43,000	79,800
1984:	July 1	1,036,000	801,400	107,000	44,100	83,400
1985:	July 1	1,051,500	811,100	109,500	45,400	85,500
1986:	July 1	1,064,700	820,300	111,200	46,200	87,100
1987:	July 1	1,082,500	830,600	114,400	47,600	89,900

1/ Including Kalawao County (Kalaupapa Settlement).

Source: Hawaii State Department of Planning and Economic Development, *Intercensal Population Estimates for Hawaii, 1940-1980* (Statistical Report 172, February 1, 1985), table 3; Hawaii State Department of Business and Economic Development, *The Population of Hawaii, 1980-1986* (Statistical Report 201, September 21, 1987), table 5, as revised; Federal-State Cooperative Program for Local Population Estimates.

Table 6.-- DE FACTO POPULATION, BY COUNTIES: 1970 TO 1987

[Includes all persons physically present in area, regardless of military status or usual place of residence. Includes visitors present but excludes residents temporarily absent, both calculated as averages for 12-month periods centered on estimate date]

Date	State total	City and County of Honolulu	Hawaii County	Kauai County	Maui County 1/
1970: April 1 ...	796,500	650,700	65,700	31,800	48,400
July 1	798,600	650,200	66,600	32,300	49,400
1971: July 1	833,100	675,300	70,600	34,000	53,100
1972: July 1	869,800	702,200	74,500	35,800	57,200
1973: July 1	901,300	726,400	78,700	36,900	59,400
1974: July 1	923,700	746,500	79,500	36,800	60,900
1975: July 1	943,500	757,100	83,300	38,100	65,100
1976: July 1	970,300	772,900	86,800	40,100	70,500
1977: July 1	992,300	786,800	89,300	41,300	74,900
1978: July 1	1,014,300	797,200	93,400	43,600	80,100
1979: July 1	1,042,700	816,000	96,700	45,200	84,800
1980: April 1 ...	1,052,700	822,000	98,700	46,100	85,900
July 1	1,055,800	823,600	99,500	46,400	86,400
1981: July 1	1,064,500	825,400	102,600	47,500	89,000
1982: July 1	1,088,300	840,100	105,700	48,500	94,000
1983: July 1	1,115,200	850,400	110,400	50,700	103,700
1984: July 1	1,138,600	856,000	113,200	54,600	114,900
1985: July 1	1,149,600	861,600	116,100	56,200	115,700
1986: July 1	1,180,500	880,900	119,500	60,300	119,700
1987: July 1	1,201,000	893,100	123,100	62,500	122,400

1/ Including Kalawao County (Kalaupapa Settlement).

Source: Hawaii State Department of Planning and Economic Development, Intercensal Population Estimates for Hawaii, 1940-1980 (Statistical Report 172, February 1, 1985), table 10; Hawaii State Department of Business and Economic Development, The Population of Hawaii, 1980-1986 (Statistical Report 201, September 21, 1987), table 6, as revised; Federal-State Cooperative Program for Local Population Estimates.

Table 7.-- ESTIMATED POPULATION, RESIDENT AND DE FACTO, AND DE FACTO DENSITY, BY COUNTIES AND ISLANDS: JULY 1, 1987

County and island	Resident population 1/		De facto population 2/		
	Number, 1987	Percent change, 1980-87	Number, 1987	Percent change, 1980-87	Per square mile, 1987
State total	1,082,500	12.2	1,201,000	14.1	186.9
County:					
Hawaii	114,400	24.3	123,100	24.7	30.5
Maui	89,800	26.7	122,300	42.6	105.3
Kalawao	145	0.7	145	0.7	10.9
Honolulu	830,600	8.9	893,100	8.6	1,497.7
Kauai	47,600	21.7	62,500	35.4	100.8
Island:					
Hawaii	114,400	24.3	123,100	24.7	30.5
Maui	81,100	29.0	112,800	46.8	154.8
Kahoolawe	-	...	-	...	-
Lanai	2,200	2.2	2,200	1.9	15.5
Molokai	6,700	10.3	7,500	8.3	28.7
Oahu 3/	830,600	8.9	893,100	8.6	1,497.7
Kauai	47,400	21.9	62,300	35.7	113.3
Niihau	202	-10.6	202	-10.6	2.9

1/ For definition, see headnote to table 5.

2/ For definition, see headnote to table 6.

3/ Includes the Northwestern Hawaiian Islands, except Midway.

Source: Hawaii State Department of Business and Economic Development, *The Population of Hawaii, 1980-1986* (Statistical Report 201, September 21, 1987), tables 7, 8, and 10, as updated and revised.

Table 8.-- RESIDENT POPULATION OF COUNTIES AND DISTRICTS: 1970, 1980, AND 1987

County and district	April 1, 1970	April 1, 1980	July 1, 1987	Percent change	
				1970 to 1980	1980 to 1987
State total	769,913	964,691	1,082,500	25.3	12.2
Hawaii County	63,468	92,053	114,400	45.0	24.3
Puna	5,154	11,751	19,000	128.0	61.8
South Hilo	33,915	42,278	45,300	24.7	7.3
North Hilo	1,881	1,679	1,500	-10.7	-12.1
Hamakua	4,648	5,128	5,300	10.3	3.9
North Kohala	3,326	3,249	3,600	-2.3	11.0
South Kohala	2,310	4,607	7,100	99.4	54.3
North Kona	4,832	13,748	20,500	184.5	49.0
South Kona	4,004	5,914	7,300	47.7	23.8
Ka'u	3,398	3,699	4,700	8.9	28.2
Maui County 1/	46,156	70,991	89,900	53.8	26.6
Hana	969	1,423	1,800	46.9	23.1
Makawao	9,979	19,005	24,200	90.4	27.2
Wailuku	22,219	32,111	41,400	44.5	28.9
Lahaina	5,524	10,284	13,800	86.2	33.9
Lanai	2,204	2,119	2,200	-3.9	2.2
Molokai	5,089	5,905	6,500	16.0	10.5
Kalawao	172	144	145	-16.3	0.7
City & Co. of Honolulu	630,528	762,565	830,600	20.9	8.9
Honolulu	324,871	365,048	381,100	12.4	4.4
Koolaupoko	92,219	109,373	116,600	18.6	6.6
Koolauloa	10,562	14,195	16,400	34.9	15.6
Waialua	9,171	9,849	11,200	7.4	13.6
Wahiawa	37,329	41,562	44,500	11.3	7.1
Waianae	24,077	31,487	34,300	30.8	8.9
Ewa	132,299	191,051	226,500	44.4	18.6
Kauai County	29,761	39,082	47,600	31.3	21.7
Hanalei	1,182	2,668	4,900	125.7	84.1
Kawaihau	7,393	10,497	13,200	42.0	26.0
Lihue	6,766	8,590	9,700	27.0	13.2
Koloa	6,851	8,734	11,200	27.5	28.5
Waimea	7,569	8,593	8,500	13.5	-1.3

1/ Including Kalawao County.

Source: Hawaii State Department of Business and Economic Development, unpublished estimates.

Table 9.-- RESIDENT POPULATION, OF ISLANDS, CITIES, TOWNS, AND VILLAGES: 1980

[This table presents data for the 101 "census designated places" defined by the Hawaii State Department of Planning and Economic Development, in cooperation with the Bureau of the Census, for the 1980 decennial census, under authority granted by Sec. 26-18, Hawaii Revised Statutes. Although described in the legislation as "cities, towns, and villages," none of these places is an independent municipality with separate governmental and taxing powers; the boundaries determined for these places are statistical rather than political]

Island and place 1/	Resident population
Hawaii	92,053
Captain Cook	2,008
Hakalau	250
Hawi	795
Hilo	35,269
Holualoa	1,243
Honokaa	1,936
Honomu	559
Kailua	4,751
Kainaliu	512
Kapaau	612
Keaau	775
Kealakekua	1,033
Kukuihaele	332
Laupahoehoe	500
Makapala	186
Mountain View	540
Naalehu	1,168
Ookala	401
Paauilo	755
Pahala	1,619
Pahoa	923
Papaaloa	264
Papaikou	1,567
Paukaa	544
Puako	257
Waimea	1,179
Wainaku	1,045
Remainder of island	31,030
Maui and Molokini	62,823
Haiku	619
Haliimaile	741
Hana	643
Honokahua	309
Kaanapali	541
Kahului	12,978
Kihei	5,644
Lahaina	6,095
Lower Paia	1,500
Makawao	2,900
Napili-Honokowai	2,446
Paia	193
Pauwela	468
Pukalani	3,950
Puunene	572
Waihee	413
Waikapu	698
Wailea	1,124
Wailuku	10,260
Remainder of island	10,729
Kahoolawe	-
Lanai	2,119
Lanai City	2,092
Remainder of island	27

Continued on next page.

Table 9.-- RESIDENT POPULATION, OF ISLANDS, CITIES, TOWNS, AND VILLAGES: 1980 -- Con.

Island and place 1/	Resident population
Molokai	6,049
Kaunakakai	2,231
Kualapuu	502
Maunaloa	633
Remainder of island	2,683
Oahu (including Northwestern Hawaiian Islands)	762,565
Ahuimanu	6,238
Aiea	32,879
Barbers Point Housing	1,373
Ewa	2,637
Ewa Beach	14,369
Haleiwa	2,412
Hauula	2,997
Heeia	5,432
Hickam Housing	4,425
Honolulu total	365,048
Oahu part	365,017
Northwestern Hawaiian Islands	31
Iroquois Point	3,915
Kaaawa	959
Kahaluu	2,925
Kahuku	935
Kailua	35,812
Kaneohe	29,919
Laie	4,643
Maili	5,026
Makaha	6,582
Makakilo City	7,691
Maunawili	5,239
Mililani Town	21,365
Mokapu	11,615
Oahu (con.):	
Nanakuli	8,185
Pearl City	42,575
Schofield Barracks	18,851
Wahiawa	16,911
Waialua	4,051
Waianae	7,941
Waimanalo	3,562
Waimanalo Beach	4,161
Waipahu	29,139
Waipio Acres	4,091
Whitmore Village	2,318
Remainder of island	46,344
Kauai	38,856
Anahola	915
Eleele	580
Hanalei	483
Hanamaulu	3,227
Hanapepe	1,417
Kalaheo	2,500
Kapaa	4,467
Kaumakani	888
Kekaha	3,260
Kilauea	895
Koloa	1,457
Lihue	4,000
Poipu	685
Princeville	500
Puhi	991
Wailua	1,587
Waimea	1,569
Remainder of island	9,435
Niihau, Lehua and Kaula	226

1/ For boundaries of places, see Hawaii State Department of Planning and Economic Development, Statistical Boundaries of Cities, Towns and Villages As Approved Through December 31, 1979 (Report SB-A15, March 13, 1980).

Source: U.S. Bureau of the Census, 1980 Census of Population, PC80-1-A13, Hawaii (October 1981), table 4, and unpublished final counts for places under 300 based on enumeration district data supplied February 13, 1981.

Table 10.-- POPULATION RANKING OF THE STATE AND HONOLULU: 1980 TO 1987

Comparison 1/	Areas ranked		Honolulu ranking		
	Year	Number	1980	1986	1987
State of Hawaii					
Among the 50 States and D.C.	1987	51	39	39	39
Honolulu MSA: 2/					
Among all MSAs and CMSAs	1987	282	47	49	49
City and County of Honolulu: 3/					
Among all counties 4/	1987	3,138	43	41	39
Among all municipalities 5/	1986	182	12	11	(NA)
Honolulu CDP: 6/					
Among all incorp. places and CDPs	1986	182	36	38	(NA)

NA Not available.

1/ MSA, Metropolitan Statistical Area; CMSA, Consolidated MSA; CDP, Census Designated Place, that is, an unincorporated urban place.

2/ The Honolulu MSA consists of the City and County of Honolulu, comprising Oahu and the Northwestern Hawaiian Islands (except Midway).

3/ The City and County of Honolulu consists of Oahu and the Northwestern Hawaiian Islands (except Midway).

4/ The other counties in Hawaii ranked as follows in 1987: Hawaii, 396; Maui, 495; Kauai, 876.

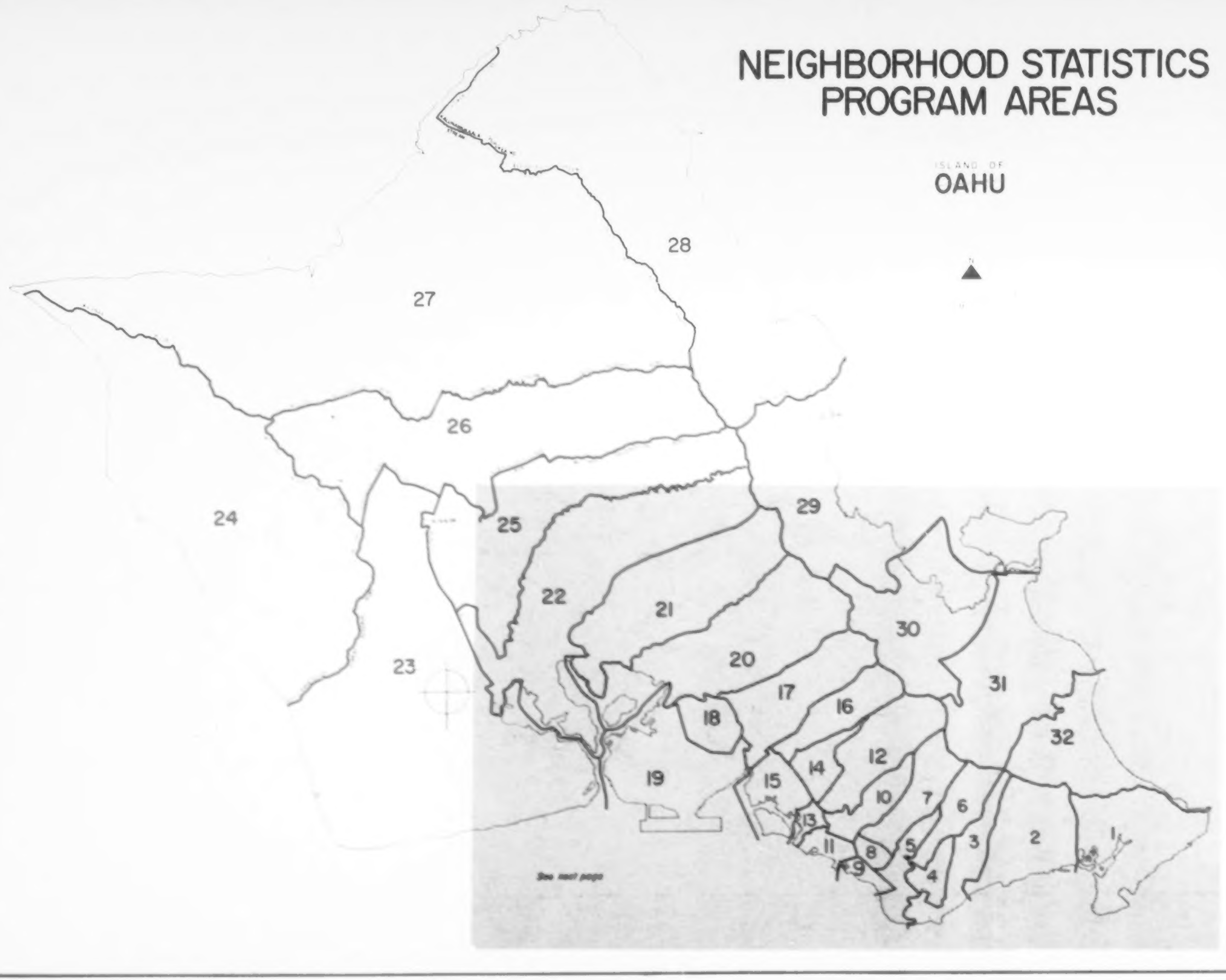
5/ Areas ranked in 1980 included all boroughs, cities, towns, villages, and other, numbering 19,097 areas in all. In 1986, only places over 100,000 were ranked.

6/ The Honolulu CDP consists of Honolulu District, comprising the area between Red Hill and Makapuu Point, south and southwest of the crest of the Koolau Mountains, and the Northwestern Hawaiian Islands (except Midway). In 1980, all 22,529 areas were ranked; in 1986, only places over 100,000.

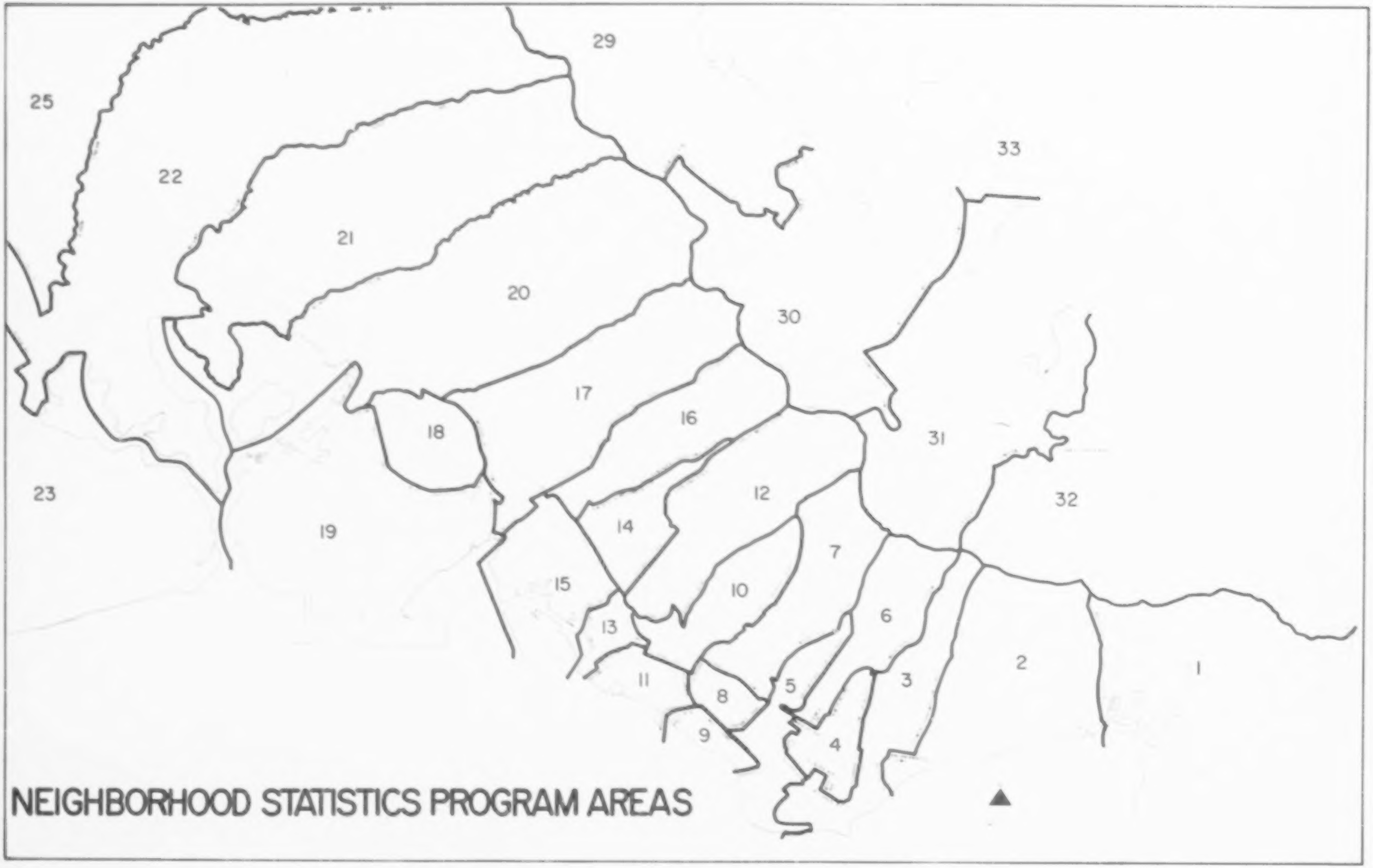
Source: U.S. Bureau of the Census, press releases and printouts.

NEIGHBORHOOD STATISTICS PROGRAM AREAS

ISLAND OF
OAHU


28
27
26
24
25
29
22
21
30
20
23
31
17
16
18
32
12
14
15
19
10
7
6
13
3
2
1
11
8
5
9
4

See next page


29
25
22
33
21
20
30
17
16
31
18
12
32
23
19
14
7
10
15
6
13
11
2
5
3
1
8
9
4

NEIGHBORHOOD STATISTICS PROGRAM AREAS

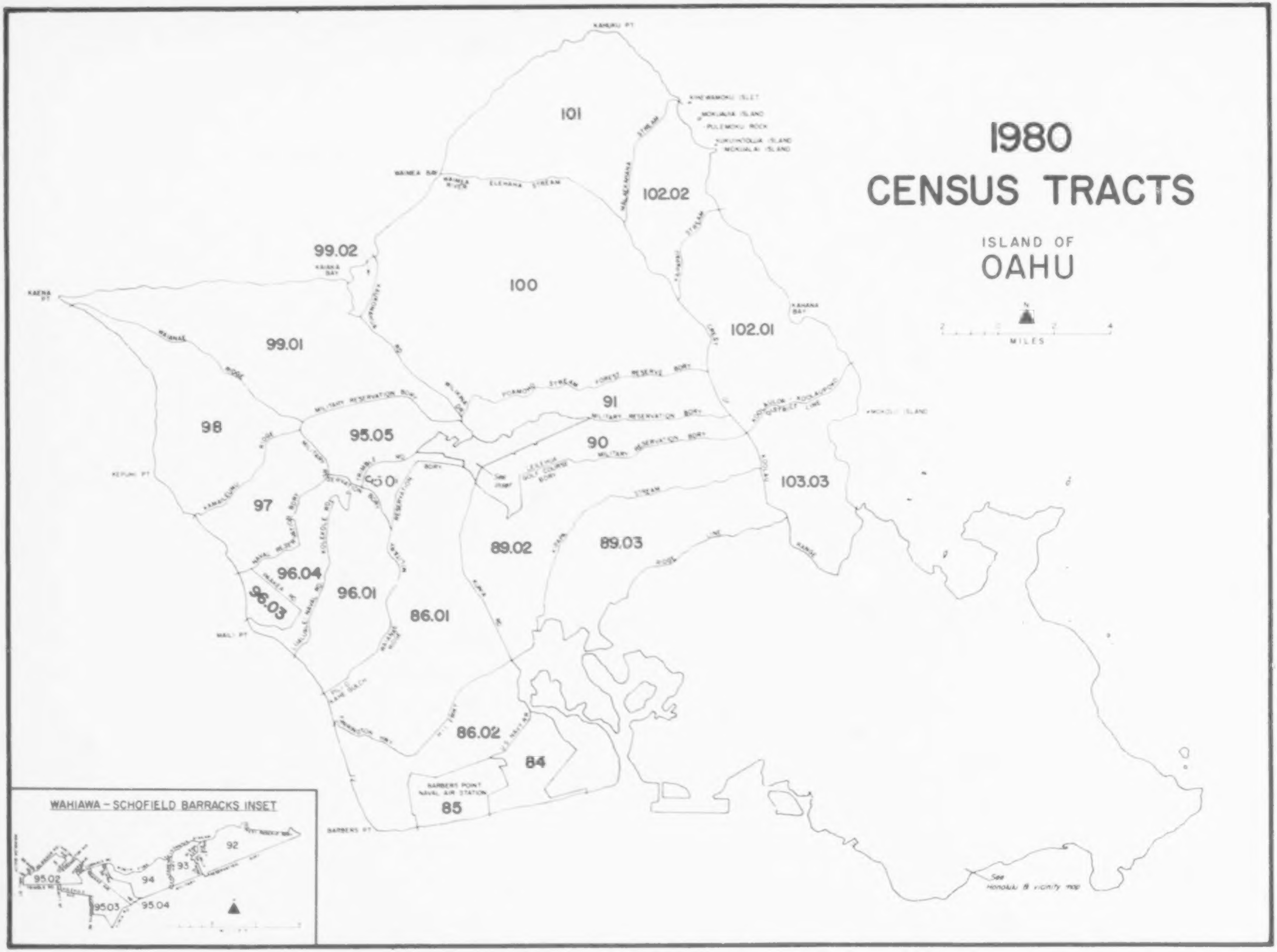
Table 11.-- POPULATION, 1980 AND 1985, AND HOUSEHOLDS, 1980, FOR OAHU NEIGHBORHOODS

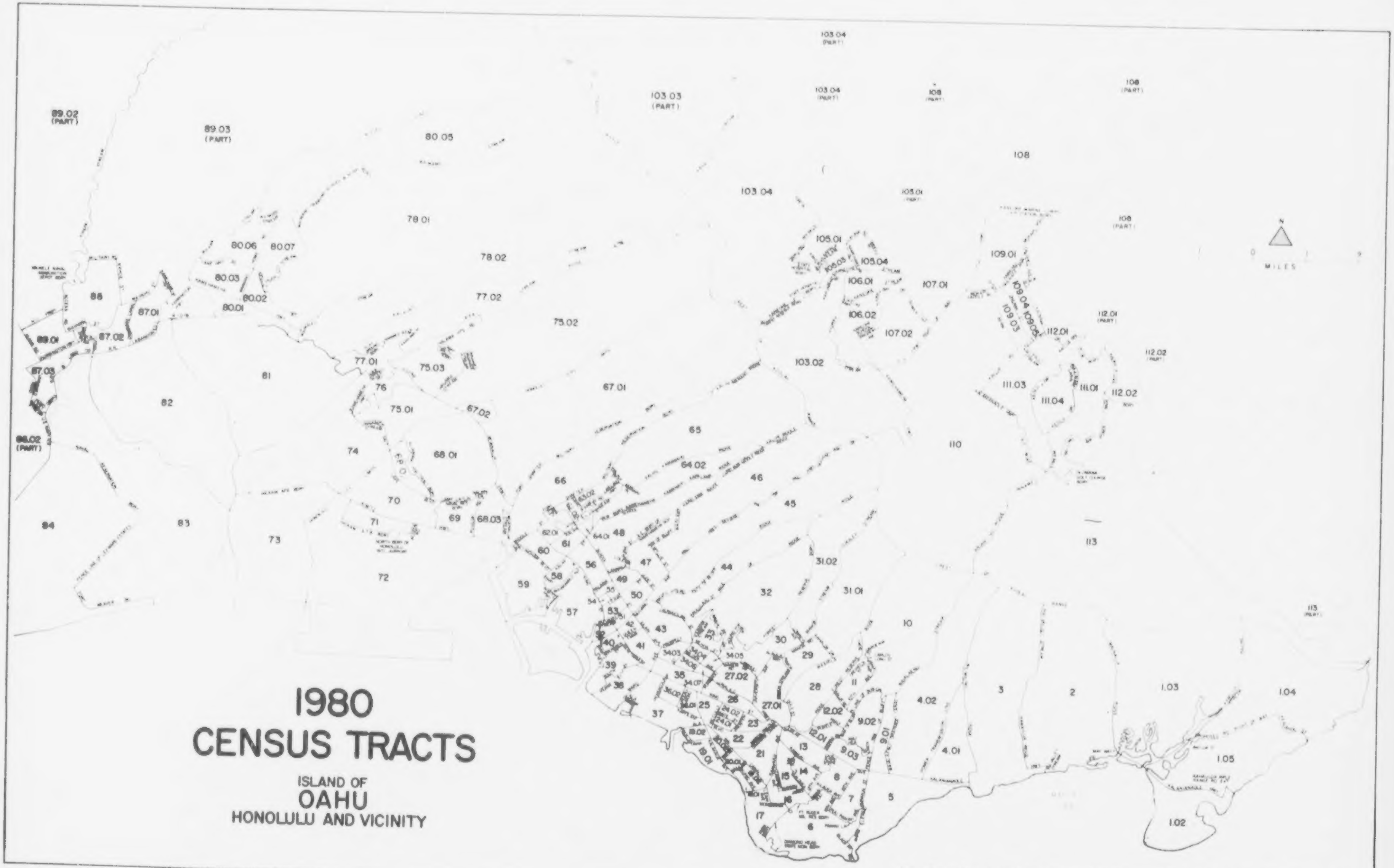
Neighborhood (see maps on pp. 23-24)	Resident population			Households, 1980
	April 1, 1980	July 1, 1985	Percent increase	
Oahu total	762,534	811,096	6.7	230,214
1 Hawaii Kai	25,603	27,294	6.6	7,518
2 Kuliouou	14,172	15,181	7.1	4,316
3 Waialae-Kahala	11,474	11,400	-0.6	3,882
4 Kaimuki	19,603	19,665	0.3	6,314
5 Diamond Head/ Kapahulu	21,191	21,941	3.5	7,853
6 Palolo	14,110	13,894	-1.5	4,092
7 Manoa	22,605	23,444	3.7	6,536
8 McCully/Moiliili	26,644	26,549	-0.4	12,188
9 Waikiki	17,384	23,152	33.2	9,852
10 Makiki/Tantalus	28,695	28,533	-0.6	14,050
11 Ala Moana/Kakaako	10,032	11,063	10.3	5,505
12 Nuuanu/Punchbowl	16,166	16,736	3.5	5,361
13 Downtown	8,674	9,813	13.1	4,406
14 Liliha/Kapalama	21,068	23,126	9.8	6,429
15 Kalihi/Palama	40,144	39,859	-0.7	10,837
16 Kalihi Valley	17,613	17,696	0.5	3,885
17 Moanalua	12,948	12,951	0.0	3,400
18 Aliamanu/Salt Lake	31,199	35,272	13.1	9,290
19 Airport	28,436	28,262	-0.6	5,416
20 Aiea	30,084	33,647	11.8	8,925
21 Pearl City	42,577	46,487	9.2	11,140
22 Waipahu	33,927	43,420	28.0	8,261
23 Ewa	35,585	36,662	3.0	8,988
24 Waianae Coast	31,487	34,980	11.1	7,964
25 Mililani/Waipio	26,134	28,201	7.9	7,801
26 Wahiawa	41,562	42,896	3.2	10,271
27 North Shore	13,061	13,227	1.3	3,899
28 Koolauloa	10,983	11,977	9.1	2,687
29 Kahaluu	11,782	12,414	5.4	3,360
30 Kaneohe	35,553	38,608	8.6	9,698
31 Kailua/Mokapu	52,906	53,620	1.3	13,953
32 Waimanalo	9,132	9,127	0.0	2,137

Source: U.S. Bureau of the Census, 1980 Census of Population and Housing, Neighborhood Statistics Program, Hawaii, PHC80-SP1-13 (1983); Honolulu Department of General Planning, records.

1980 CENSUS TRACTS

ISLAND OF OAHU

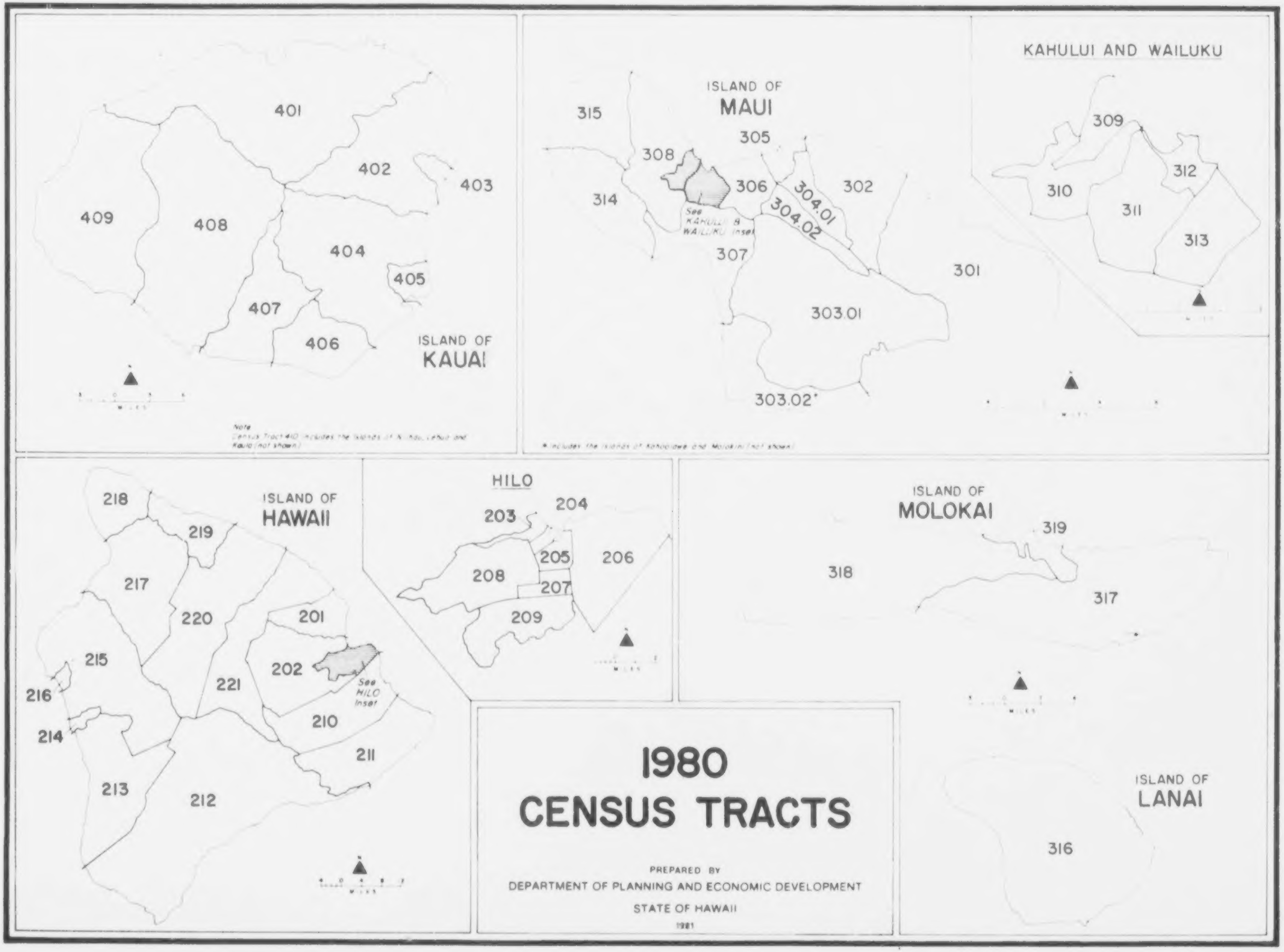

MILES
KAHUKU PT
KIHEWAMOKU ISLET
MOKUAUIA ISLAND
PULEMOKU ROCK
MOKUALAI ISLAND
WAIMEA BAY
ELEHAHA STREAM
KAIAKA BAY
KAENA PT
KAHANA BAY
WAIANAE RIDGE
KEPUHI PT
MAILI PT
BARBERS PT
FOREST RESERVE BDRY
MILITARY RESERVATION BDRY
STREAM
RIDGE LINE
BARBERS POINT NAVAL AIR STATION
See Honolulu & vicinity map
101
102.02
102.01
100
99.02
99.01
98
97
96.04
96.03
96.01
95.05
91
90
89.02
89.03
103.03
86.01
86.02
84
85
WAHIAWA - SCHOFIELD BARRACKS INSET
92
93
94
95.02
95.03
95.04


89.02 (PART)
89.03 (PART)
80.05
103.03 (PART)
103.04 (PART)
103.04 (PART)
108 (PART)
108 (PART)
108
103.04
105.01 (PART)
108 (PART)
N
0 MILES 1 2
78.01
80.06
80.07
80.03
80.02
80.01
88
87.01
87.02
89.01
87.03
86.02 (PART)
78.02
77.02
73.02
105.01
105.03
105.04
106.01
107.01
106.02
107.02
109.01
109.04
109.05
109.03
112.01 (PART)
112.01
112.02 (PART)
103.02
111.03
111.04
111.01
112.02
77.01
75.03
76
75.01
67.02
67.01
81
82
74
68.01
70
71
69
68.03
84
83
73
72
65
64.02
66
63.02
62.01
61
60
59
58
57
64.01
48
56
47
49
50
46
45
44
110
113
113 (PART)
31.02
32
31.01
10
43
41
40
39
38
37
36
35
34.03
34.05
34.07
33
30
29
28
27.02
27.01
26
25
24.02
24.01
23
22
21
20
19.01
19.02
11
12.02
12.01
9.02
9.01
9.03
13
14
15
16
17
18
8
7
6
5
4.02
4.01
3
2
1.03
1.04
1.05
1.02

1980 CENSUS TRACTS

ISLAND OF
OAHU
HONOLULU AND VICINITY

Note: Census Tract 114 (not shown) consists of the Northwestern Hawaiian Islands, exclusive of Midway Islands.



ISLAND OF KAUAI
401
402
403
404
405
406
407
408
409
Note
Census Tract 410 includes the islands of Niihau, Lehua and Kaula (not shown)
ISLAND OF MAUI
301
302
303.01
303.02*
304.01
304.02
305
306
307
308
314
315
See KAHULUI & WAILUKU Inset
* Includes the islands of Kahoolawe and Molokini (not shown)
KAHULUI AND WAILUKU
309
310
311
312
313
ISLAND OF HAWAII
201
202
210
211
212
213
214
215
216
217
218
219
220
221
See HILO Inset
HILO
203
204
205
206
207
208
209
ISLAND OF MOLOKAI
317
318
319
ISLAND OF LANAI
316
MILES

1980
CENSUS TRACTS

PREPARED BY
DEPARTMENT OF PLANNING AND ECONOMIC DEVELOPMENT
STATE OF HAWAII
1981

Table 12.-- RESIDENT POPULATION OF THE CITY AND COUNTY OF HONOLULU, BY CENSUS TRACTS: 1980 AND 1985

[See maps, pp. 26-27]

Census tract	Apr. 1, 1980	July 1, 1985
Total	762,565	811,096
Honolulu District	365,048	382,561
1.02	2,067	2,041
1.03	10,784	11,804
1.04	7,202	7,903
1.05	5,550	5,546
2	4,970	5,762
3	5,518	5,448
4.01	2,734	2,871
4.02	3,438	3,686
5	4,711	4,597
6	1,654	1,630
7	3,350	3,311
8	4,137	4,110
9.01	2,621	2,588
9.02	3,912	3,938
9.03	2,932	2,926
10	3,213	3,239
11	4,077	4,057
12.01	3,227	3,295
12.02	3,593	3,609
13	4,642	4,604
14	2,797	2,762
15	3,857	3,824
16	4,617	4,565
17	2,492	2,730
18.01	1,140	1,384
18.02	3,259	5,635
19.01	1,412	1,958
19.02	5,413	6,611
20.01	2,560	4,354
20.02	3,600	3,210
21	3,619	3,582
22	6,782	6,687
23	5,073	4,995
24.01	2,912	2,960
24.02	3,042	3,180
25	4,016	3,926
Honolulu Dist. con.		
26	4,819	4,800
27.01	5,291	5,311
27.02	5,344	5,345
28	3,679	4,333
29	1,583	1,598
30	4,491	4,600
31.01	3,923	4,020
31.02	3,716	3,769
32	1,132	1,135
33	1,069	1,083
34.03	5,074	5,082
34.04	4,511	4,608
34.05	3,014	3,002
34.06	5,238	5,313
34.07	1,033	1,051
35	4,399	4,389
36.01	4,326	5,346
36.02	2,661	2,791
37	2,477	2,357
38	387	332
39	115	68
39.99 1/	108	108
40	820	1,066
41	4,320	4,313
42	2,637	2,604
43	5,339	5,422
44	5,274	5,273
45	5,042	5,506
46	3,928	3,906
47	4,893	4,970
48	6,146	7,716
49	3,165	3,116
50	4,075	4,589
51	1,611	2,408
52	858	1,103
53	4,529	4,475
54	1,718	1,696
55	2,106	2,095

Continued on next page.

Table 12.-- RESIDENT POPULATION OF THE CITY AND COUNTY OF HONOLULU, BY CENSUS TRACTS: 1980 AND 1985--Con.

[See maps, pp. 26-27]

Census tract	Apr. 1, 1980	July 1, 1985
Honolulu Dist. con.		
56	5,794	6,489
57	1,556	1,409
57.99 1/	592	592
58	3,524	3,456
59	3,854	3,662
59.99 1/	21	21
60	5,663	5,410
61	3,381	3,314
62.01	4,741	4,609
62.02	2,665	2,631
63.01	3,315	3,270
63.02	2,945	2,974
64.01	1,737	1,798
64.02	5,579	5,541
65	4,037	4,114
66	2,716	2,675
67.01	7,477	7,514
67.02	2,755	2,720
68.01	20,689	23,970
68.02	4,890	4,982
68.03	-	0
69	3,109	3,070
70	4,251	4,024
71	2,588	2,667
72	1,364	1,592
114	31	31
Rest of county	397,517	428,535
73	6,393	6,145
73.99 1/	-	0
74	3,138	3,172
74.99 1/	7,593	7,593
75.01	7,467	8,694
75.02	444	443
75.03	4,865	5,042
76	1,556	1,593
77.01	4,645	4,665
77.02	4,838	4,837
78.01	12,813	14,996
78.02	11,367	14,382
Rest of county, con.		
80.01	1,498	1,463
80.02	2,987	2,919
80.03	3,377	5,169
80.05	7,465	7,394
80.06	5,906	5,862
80.07	6,473	6,395
81	2,580	2,548
82	-	0
83	12,437	12,272
84	7,643	7,596
85	2,942	2,912
86.01	8,559	9,380
86.02	4,653	5,160
86.99 1/	21	21
87.01	7,284	7,209
87.02	3,854	3,764
87.03	3,468	3,462
88	4,484	5,189
89.01	7,861	7,801
89.02	25,874	31,904
89.03	6,566	12,447
90	2,413	2,385
91	3,339	3,943
92	7,420	7,657
93	4,451	4,425
94	5,040	5,008
95.01	3,587	3,684
95.02	5,326	5,133
95.03	6,076	6,075
95.04	955	1,050
95.05	2,955	2,872
96.01	5,159	5,628
96.03	5,711	6,020
96.04	4,165	4,102
97	10,524	11,278
98	5,928	7,874
99.01	5,350	5,473
99.02	2,620	2,740
100	1,879	1,872
101	4,491	5,297

Continued on next page.

Table 12.-- RESIDENT POPULATION OF THE CITY AND COUNTY OF HONOLULU, BY CENSUS TRACTS: 1980 AND 1985--Con.

[See maps, pp. 26-27]

Census tract	Apr. 1, 1980	July 1, 1985	Census tract	Apr. 1, 1980	July 1, 1985
Rest of county, con.			Rest of county, con.		
102.01	3,952	4,001	108.99 1/	37	37
102.02	5,752	5,820	109.01	3,161	3,148
103.02	3,232	3,370	109.03	4,158	4,213
103.03	3,593	3,717	109.04	3,506	3,538
103.04	9,784	10,925	109.05	2,536	2,547
105.01	8,712	9,448	110	4,218	4,733
105.03	1,804	1,770	111.01	7,966	8,546
105.04	4,794	5,089	111.03	3,872	3,874
106.01	3,019	3,082	111.04	5,370	5,347
106.02	4,994	5,157	112.01	4,841	4,920
107.01	3,680	3,821	112.02	1,663	1,677
107.02	3,723	4,196	113	9,132	9,120
108	11,578	11,494			

1/ Vessels anchored off the indicated tract.

Source: U.S. Bureau of the Census, 1980 Census of Population and Housing, Census Tracts, Honolulu, Hawaii, Standard Metropolitan Area, PHC80-2-183 (June 1983), table P-1; City and County of Honolulu, Department of General Planning, unpublished estimates.

Table 13.-- RESIDENT POPULATION OF HAWAII, KALAWAO, KAUAI, AND MAUI COUNTIES, BY CENSUS TRACTS: 1980

[See maps, p. 28]

County and census tract	Population
Hawaii County	92,053
201	5,261
202	1,748
203	4,292
204	4,003
205	5,672
205.99 1/	25
206	3,702
207	7,690
208	7,017
209	2,868
210	7,055
211	4,696
212	3,699
213	3,560
214	2,354
215	7,610
216	6,138
217	4,607
218	3,249
219	3,287
220	1,841
221	1,679
Kalawao County	144
319	144
Kauai County	39,082
401	2,668
402	6,030
403	4,467
404	4,590
Kauai County -- con.:	
405	4,000
406	3,879
407	4,855
408	3,111
409	5,256
410	226
Maui County	70,991
301	1,423
302	3,567
303.01	3,850
303.02	1,227
304.01	4,366
304.02	4,285
305	1,710
306	220
307	6,020
307.99 1/	15
308	1,584
309	6,542
310	4,132
311	10,424
312	2,602
313	572
314	6,654
315	3,630
316	2,119
317	3,574
318	2,331

1/ The ".99" census tracts consist of vessels anchored off the indicated tract; for example, persons living aboard ships in Maalaea Bay, adjacent to tract 307, are assigned to tract 307.99.

Source: U.S. Bureau of the Census, 1980 Census of Population and Housing, Census Tracts, Hawaii, Selected Areas, PHC80-2-13 (June 1983).

Table 14.-- RESIDENT AND DE FACTO POPULATION AND EMPLOYED PERSONS, FOR WAIKIKI: 1960 TO 1985

[For definitions of resident and de facto population, see table 3, footnotes 1 and 3. For earlier years, 1920-1950, see Data Book 1987, table 14. Waikiki is the area bounded by the Ala Wai Canal, Kapahulu Avenue, and the Pacific Ocean]

Subject	1960	1970	1980	1985	Density 1/ 1980	Density 1/ 1985
Resident population	11,075	13,124	17,384	23,152	28.4	37.8
Temporarily absent 2/ ..	36	176	174	409	0.3	0.7
De facto population	18,753	34,874	63,710	78,823	103.9	128.6
Visitors present 2/	7,714	21,926	46,500	56,080	75.9	91.5
Employed persons: 3/						
Living in Waikiki	6,327	7,866	9,593	(NA)	15.6	(NA)
Working in Waikiki	(NA)	(NA)	30,011	(NA)	49.0	(NA)

NA Not available.
1/ Per acre. Based on net land area of 613 acres.
2/ Annual averages. Estimated.
3/ Includes armed forces.

Source: Visitors present and residents absent estimated by Hawaii State Data Center from Hawaii Visitors Bureau survey data. Resident population and employment from U.S. Bureau of the Census, census tract bulletins, 1960-1980, and Data Book 1987, tables 12 and 380.

Table 15.-- RESIDENT POPULATION OF CONGRESSIONAL DISTRICTS: 1980 AND 1986

[Estimates for 1986 are provisional. Districts as defined for the 100th Congress]

Congressional District	April 1, 1980	July 1, 1986	Percent change
State total	964,691	1,062,000	10.1
1	482,321	501,200	3.9
2	482,370	561,200	16.3

Source: U.S. Department of Commerce News, Release CB88-14 (January 25, 1988).

Table 16.-- CENTERS OF POPULATION, FOR THE STATE, 1960 TO 1980, AND COUNTIES, 1970 AND 1980

County	North latitude (degrees)	West longitude (degrees)	Approximate location
State of Hawaii 1/	21.2009	157.6129	7 mi. SE of Koko Head
Hawaii County	19.7015	155.3667	17 mi. W of Hilo
Maui County	20.8809	156.5184	1 mi. SW of Wailuku PO
Kalawao County	21.1930	156.9766	Kalaupapa
Honolulu County	21.3704	157.8946	1457 Ala Aolani St.
Kauai County	22.0065	159.4659	3.5 mi. N of Knudsen Gap

1/ The geogrpahic center of the State, based on land area instead of population, is located at 20° 15' N., 156° 20' W., 24 miles south of Kanahena Point.

Source: Hawaii State Census Statistical Areas Committee, Centers of Population, 1960-1980 (Report CTC-59, August 17, 1984).

Table 17.-- POPULATION AND LAND AREA, URBAN AND RURAL, BY COUNTIES: 1970 AND 1980

[Urban places are those with populations of 2,500 or more. Places with populations less than 2,500 and open country are classified as rural. For 1960 statistics, see Data Book 1984, tables 15 and 16]

County and type of area	Land area (square miles)		Resident population	
	1970	1980	1970	1980
State total	6,425.4	6,425	769,913	964,691
Urban	226.8	278	643,222	834,592
Rural	6,198.6	6,147	126,691	130,099
City and Co. of Honolulu	595.7	596	630,528	762,565
Honolulu Urbanized Area 1/	115.0	135	443,749	582,463
Kailua-Kaneohe Urbanized Area 2/	(3/)	34	(3/)	105,712
Other urban	37.3	15	146,225	47,116
Rural	443.4	412	40,554	27,274
Hawaii County	4,037.0	4,034	63,468	92,053
Urban	56.1	61	26,353	40,020
Rural	3,980.9	3,973	37,115	52,033
Kauai County	619.1	620	29,761	39,082
Urban	10.2	12	6,918	17,454
Rural	608.9	608	22,843	21,628
Maui and Kalawao Counties	1,173.6	1,175	46,156	70,991
Urban	8.2	21	19,977	41,827
Rural	1,165.4	1,154	26,179	29,164

1/ The Honolulu Urbanized Area consists of Honolulu District (the area southwest of the crest of the Koolau Mountains, between Red Hill and Makapuu Point) and the adjacent urbanized territory circling Pearl Harbor, as far west as Waipahu and Ewa Beach in 1970 and 1980, and also extending to Whitmore Village and Schofield Barracks in 1980.

2/ The Kailua-Kaneohe Urbanized Area was initially defined as of 1980. It includes the urban territory on Windward Oahu, from Kahaluu through Waimanalo Beach.

3/ Included with "other urban."

Source: 1970 from the Hawaii State Department of Planning and Economic Development, Land Use and Ownership Trends in Hawaii (Statistical Report 98, December 28, 1973), p. 19; 1980 from U.S. Bureau of the Census, 1980 Census of Population, PC80-1-A1, tables 25 and 34, and PC80-1-A13, table 3, and the Hawaii State Department of Planning and Economic Development, Statistical Memorandum 83-6 (May 18, 1983).

Table 18.-- POPULATION PROJECTIONS, RESIDENT AND DE FACTO, BY COUNTIES: 1985 TO 2010

[Thousands. As of July 1. Series M-K projections, developed by DBED]

Type of population and year	State total	City and County of Honolulu	Other counties			
			Total	Hawaii	Kauai	Maui 1/
Resident population: 2/						
1985	1,051.5	811.1	240.4	109.5	45.4	85.5
1990	1,137.2	861.6	275.6	124.6	54.1	96.8
1995	1,225.2	910.4	314.9	142.5	61.1	111.2
2000	1,285.1	932.8	352.4	160.4	68.2	123.9
2005	1,350.8	961.1	389.7	180.8	75.5	133.4
2010	1,435.5	999.5	435.9	206.1	84.6	145.2
De facto population: 3/						
1985	1,149.6	861.6	288.1	116.1	56.2	115.7
1990	1,269.1	928.0	341.2	134.4	70.1	136.7
1995	1,382.3	983.1	399.2	158.6	81.7	159.0
2000	1,468.6	1,012.5	456.1	183.0	94.0	179.1
2005	1,560.3	1,048.5	511.9	211.0	104.8	196.0
2010	1,674.2	1,094.7	579.5	243.0	120.3	216.2

1/ Includes Kalawao.

2/ The resident population is defined as the number of persons whose usual place of residence is in an area, regardless of physical location on the estimate or census date. It includes military personnel stationed or homeported in the area but excludes persons of local origin attending school or in military service outside the area.

3/ The de facto population is defined as the number of persons physically present in an area, regardless of military status or usual place of residence; it includes visitors present but excludes residents temporarily absent.

Source: Hawaii State Department of Business and Economic Development, Series M-K, forthcoming report.

Table 19.-- RESIDENT POPULATION, BY AGE AND SEX: 1980 AND 1987

[In thousands. Includes armed forces stationed or homeported in Hawaii. The 1987 estimates are provisional]

Age group	April 1, 1980 (census)			July 1, 1987 (estimates)		
	Both sexes	Male	Female	Both sexes	Male	Female
Total	965	495	470	1,083	552	531
Under 5 years	78	40	38	89	46	43
5 to 14 years	148	76	72	152	78	74
15 to 24 years	192	105	87	175	94	80
25 to 34 years	180	92	88	197	102	95
35 to 44 years	111	56	55	164	82	82
45 to 54 years	94	45	50	97	47	51
55 to 64 years	85	42	43	101	50	50
65 to 74 years	49	26	23	69	34	35
75 years and over ..	27	12	15	40	19	21
5 to 17 years	198	102	96	197	101	96
18 to 24 years	142	79	63	129	71	58
25 to 44 years	291	148	143	360	184	177
45 to 64 years	180	87	92	198	97	101
16 years and over ..	723	370	352	828	421	407
18 years and over ..	689	353	336	797	405	392
21 years and over ..	631	320	310	745	377	368
65 years and over ..	76	38	38	109	53	56
Median age	28.3	27.6	29.1	31.5	30.7	32.3

Source: U.S. Bureau of the Census, "State Population and Household Estimates, With Age, Sex, and Components of Change: 1981-87," Current Population Reports, Population Estimates and Projections, Series P-25, No. 1024 (May 1988), p. 40.

Table 20.-- RESIDENT POPULATION, BY AGE AND SEX, FOR COUNTIES: JULY 1, 1984

[Provisional estimates]

Sex and age	State total	City and County of Honolulu	Hawaii County	Kauai County	Maui County
Total	1,037,848	803,135	107,133	44,155	83,425
Males	529,052	408,445	55,062	22,962	42,583
Under 5 years	46,959	35,602	5,266	2,165	3,926
5 to 9 years	36,702	27,535	4,582	1,566	3,019
10 to 14 years	38,659	29,289	4,533	1,676	3,161
15 to 19 years	40,287	31,855	3,920	1,589	2,923
20 to 24 years	58,567	50,022	3,873	1,675	2,997
25 to 34 years	99,360	76,236	9,809	4,397	8,918
35 to 44 years	68,261	52,789	7,123	2,948	5,401
45 to 54 years	46,366	36,222	4,566	1,897	3,681
55 to 64 years	48,627	36,720	5,385	2,315	4,207
65 to 74 years	29,752	21,437	3,787	1,702	2,826
75 years and over	15,512	10,738	2,218	1,032	1,524
Females	508,796	394,690	52,071	21,193	40,842
Under 5 years	42,776	32,295	5,050	2,034	3,397
5 to 9 years	35,172	26,397	4,094	1,619	3,062
10 to 14 years	36,051	27,339	3,810	1,817	3,085
15 to 19 years	38,214	30,287	3,768	1,337	2,822
20 to 24 years	48,523	39,902	3,873	1,540	3,208
25 to 34 years	94,440	73,398	9,504	3,749	7,789
35 to 44 years	65,175	51,234	6,085	2,598	5,258
45 to 54 years	49,699	39,026	4,948	1,977	3,748
55 to 64 years	51,175	39,183	5,488	2,202	4,302
65 to 74 years	29,694	22,166	3,430	1,467	2,631
75 years and over	17,877	13,463	2,021	853	1,540
Median age	29.9	29.6	30.6	31.3	30.9
Male	29.3	28.8	30.5	31.6	30.8
Female	30.5	30.4	30.7	30.9	31.0

Source: U.S. Bureau of the Census, County Population Estimates (Experimental) by Age, Sex, and Race: 1980, 1982, and 1984 (1987), tabulated by the Hawaii State Data Center.

Table 21.-- PROJECTED RESIDENT POPULATION, BY AGE AND SEX: 1990, 2000, AND 2010

[Thousands. As of July 1. Series M-K projections, developed by DBED. For 1980 estimate see Data Book 1984, table 22]

Age in years	1990			2000			2010		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Total .	1,137.2	577.7	559.5	1,285.1	648.8	636.3	1,435.5	722.6	712.8
0 to 4	86.9	44.6	42.2	88.4	45.5	43.0	97.9	50.4	47.6
5 to 9	91.5	46.5	45.0	86.9	44.5	42.4	93.7	47.6	46.1
10 to 14 ...	77.9	39.9	38.0	86.9	44.0	42.9	89.2	45.2	44.0
15 to 19 ...	80.7	44.1	36.6	98.2	51.8	46.4	95.0	51.0	44.0
20 to 24 ...	103.5	58.6	44.9	108.1	63.1	45.0	119.2	68.4	50.8
25 to 29 ...	89.0	44.9	44.1	96.1	51.8	44.3	115.4	60.4	55.0
30 to 34 ...	100.5	51.1	49.4	95.8	48.4	47.4	101.8	53.2	48.6
35 to 39 ...	95.3	48.1	47.2	88.1	43.3	44.8	95.2	50.1	45.1
40 to 44 ...	83.0	41.5	41.5	96.9	48.5	48.4	92.6	46.1	46.5
45 to 49 ...	62.3	30.5	31.8	92.0	45.6	46.4	85.2	41.0	44.2
50 to 54 ...	46.6	22.0	24.6	80.9	39.7	41.1	94.4	46.4	48.0
55 to 59 ...	45.9	21.8	24.2	60.5	29.2	31.3	89.9	43.9	46.0
60 to 64 ...	48.9	24.0	24.9	45.4	21.0	24.4	77.9	37.6	40.3
65 to 69 ...	45.8	22.5	23.2	43.0	19.7	23.3	56.4	26.4	30.0
70 to 74 ...	33.4	16.0	17.4	42.4	19.8	22.6	40.0	17.6	22.3
75 to 79 ...	22.7	11.1	11.6	36.1	16.6	19.5	34.3	14.7	19.6
80 to 84 ...	13.8	6.8	7.0	22.8	9.8	13.0	29.5	12.3	17.2
85 and over	9.6	3.6	6.0	16.5	6.5	10.0	27.8	10.3	17.5
Median age .	31.9	31.0	32.9	34.1	32.5	35.8	35.3	33.6	37.2

Source: Hawaii State Department of Business and Economic Development, forthcoming report.

Table 22.-- ETHNIC STOCK BY MILITARY STATUS: 1986

[Excludes persons in institutions or military barracks, on Niihau, or in Kalawao. Based on a sample survey of 17,107 persons]

Ethnic stock 1/	Total		Armed forces	Military dependents	Other civilians
	Number	Percent			
All groups	1,022,745	100.0	37,169	66,211	919,366
Unmixed	703,990	68.8	34,947	54,545	614,497
Caucasian	239,294	23.4	22,729	33,105	183,460
Japanese	235,207	23.0	127	886	234,194
Chinese	48,727	4.8	67	0	48,660
Filipino	115,519	11.3	1,402	5,456	108,661
Hawaiian	8,093	0.8	0	0	8,093
Korean	13,284	1.3	0	714	12,569
Black	23,032	2.3	8,703	11,573	2,756
Puerto Rican	4,279	0.4	861	1,021	2,397
Samoan	3,825	0.4	151	768	2,906
Other unmixed or unknown .	12,729	1.2	908	1,022	10,800
Mixed	318,755	31.2	2,221	11,665	304,869
Part Hawaiian	203,355	19.9	490	982	201,884
Non Hawaiian	115,401	11.3	1,732	10,684	102,985

1/ Definitions used in this table differ from those in reports of the U.S. Bureau of the Census. Persons of mixed race are shown separately in this table but in 1980 census tabulations are assigned to one of the unmixed groups on the basis of self-identification or race of mother.

Source: Hawaii State Department of Health, Hawaii Health Surveillance Program, special tabulation.

Table 23.-- ETHNIC STOCK, BY COUNTIES: 1986

[Excludes persons in institutions or military barracks, on Niihau, or in Kalawao. Based on a sample survey of 17,107 persons]

Ethnic stock 1/	State total 2/	City and Co. of Honolulu	Hawaii County	Kauai County	Maui County
All groups	1,022,751	780,024	110,140	45,921	86,666
Unmixed	704,416	555,941	62,008	30,248	56,220
Caucasian	239,444	182,751	26,174	8,579	21,940
Japanese	235,232	185,371	22,473	10,226	17,162
Chinese	48,832	46,680	1,303	273	575
Filipino	115,611	81,924	9,741	10,464	13,482
Hawaiian	8,104	5,502	666	334	1,602
Korean	13,313	12,608	285	103	318
Black	23,031	22,693	263	12	64
Puerto Rican	4,263	2,928	756	181	397
Samoan	3,830	3,751	79	0	0
Other unmixed and unknown	12,756	11,731	269	75	681
Mixed	318,335	224,084	48,132	15,673	30,446
Part Hawaiian	203,085	138,309	33,405	10,208	21,163
Non Hawaiian	115,250	85,775	14,727	5,465	9,283

1/ Definitions used in this table differ from those in reports of the U.S. Bureau of the Census. Persons of mixed race are shown separately in this table but in 1980 census tabulations are assigned to one of the unmixed groups on the basis of self-identification or race of mother.

2/ Because of technical reasons, data by race differ slightly from figures in preceding table.

Source: Hawaii State Department of Health, Hawaii Health Surveillance Program, special tabulation.

Table 24.-- POPULATION BY RACE AND SPANISH ORIGIN, BY COUNTIES: 1980

[Based on a 15.7-percent sample]

Race and Spanish origin	State total	City and Co. of Honolulu	Other counties			
			Hawaii	Kalawao	Kauai	Maui
Total persons	964,691	762,565	92,053	144	39,082	70,847
Race: 1/						
White	331,925	262,604	32,198	21	11,565	25,537
Black	17,687	17,203	278	-	59	147
American Indian	2,833	2,348	316	-	63	106
Eskimo	74	69	-	-	-	5
Aleut	69	28	17	-	-	24
Japanese	239,734	190,218	24,446	23	9,606	15,441
Chinese	55,916	52,301	1,600	9	587	1,419
Filipino	132,075	96,421	12,746	26	9,944	12,938
Korean	17,453	16,566	522	1	128	236
Asian Indian	708	637	25	-	-	46
Vietnamese	3,403	3,251	139	-	-	13
Hawaiian	118,251	81,868	17,317	59	6,057	12,950
Guamanian	1,630	1,470	49	-	64	47
Samoan	14,349	13,975	219	3	63	89
Other Asian and Pacific Islander 2/	7,140	6,410	490	2	24	214
Race n.e.c.	21,444	17,196	1,691	-	922	1,635
Spanish origin: 3/						
Spanish origin	71,399	54,619	8,261	1	3,226	5,292
Not of Spanish origin ..	893,292	707,946	83,792	143	35,856	65,555

n.e.c. Not elsewhere classified.

1/ Persons of mixed race classified by self-identification or race of mother. Data are not comparable either to earlier censuses or to such surveys as the Hawaii Health Surveillance Program. The latter survey reported that 27.3 percent of the population in households in 1980 was of mixed race (17.9 percent Part Hawaiian and 9.4 percent non-Hawaiian).

2/ For detailed composition, see Census of Population: 1980, Asian and Pacific Islander Population in the United States: 1980 (2 parts), PC80-2-1E (1988), table 2.

3/ For a cross-tabulation of Spanish origin by race, see Data Book 1985, table 27.

Source: U.S. Bureau of the Census, Census of Population: 1980, General Social and Economic Characteristics, Hawaii, PC80-1-C13 (1983), tables 58 and 59.

Table 25.-- ANCESTRY: 1980

Ancestry group 1/	Persons who reported -- At least one specific ancestry group	A single ancestry group	A multiple ancestry group
Total 2/	901,210	632,972	268,238
Dutch	10,554	1,886	8,668
English	96,223	33,262	62,961
French	26,429	3,926	22,503
German	82,982	22,181	60,801
Irish	68,041	12,845	55,196
Italian	13,994	5,331	8,663
Portuguese	57,541	26,447	31,094
Scottish	24,300	3,387	20,913
Afro-American	15,612	13,200	2,412
Chinese	91,305	45,062	46,243
Filipino	139,621	105,973	33,648
Japanese	246,000	214,964	31,036
Korean	20,854	15,091	5,763
Puerto Rican	14,997	7,082	7,915
Spanish/Hispanic	17,208	4,001	13,207
Hawaiian 3/	136,341	61,226	75,115
American Indian	11,728	2,210	9,518

1/ Shown separately for all groups over 10,000.

2/ Numbers by ancestry group do not add to total because persons reporting a multiple ancestry are included in more than one group.

3/ The U.S. total for persons with Hawaiian ancestry was 202,054, including 84,104 reporting a single ancestry group and 117,950 reporting a multiple ancestry group. Out of 65,708 Mainland residents reporting Hawaiian ancestry, 32,145 were living in California.

Source: U.S. Bureau of the Census, 1980 Census of Population, Ancestry of the Population by State: 1980, Supplementary Report PC80-S1-10 (April 1983).

Table 26.-- NATIVITY, PLACE OF BIRTH, AND CITIZENSHIP: 1980 AND 1970

Nativity, place of birth, and citizenship	State totals		Islands: 1980	
	1980	1970	Oahu	Other islands
NATIVITY AND PLACE OF BIRTH				
Total persons	964,691	768,559	762,565	202,126
Native 1/	827,675	692,964	649,354	178,321
Born in Hawaii	557,990	455,060	420,120	137,870
Born in different State	248,752	178,531	209,901	38,851
Born abroad, at sea, etc. 2/	20,933	17,286	19,333	1,600
Foreign born	137,016	75,595	113,211	23,805
Europe and U.S.S.R.	9,100	5,595	7,457	1,643
China	6,112	4,663	5,875	237
Japan	22,265	19,685	18,718	3,547
Korea	9,060	2,063	8,774	286
Philippines	58,510	33,175	43,880	14,630
Vietnam	3,606	(3/)	3,531	75
All other countries	22,267	8,208	19,719	2,548
Country not reported	6,096	2,206	5,257	839
CITIZENSHIP 4/				
Foreign born	137,016	73,578	113,211	23,805
Naturalized citizen	62,287	30,566	51,314	10,973
Not a citizen	74,729	43,012	61,897	12,832

1/ 1970 figure includes persons not reporting place of birth, not shown separately.

2/ Includes persons born in Puerto Rico, American Samoa, or other outlying areas of the United States, and persons born at sea or in a foreign country having at least one American parent.

3/ Included with "All other countries."

4/ 1970 data based on a subsample; foreign born total thus differs somewhat from corresponding figure shown elsewhere in this table.

Source: U.S. Bureau of the Census, 1980 Census of Population, General Social and Economic Characteristics, Hawaii, PC80-1-C-13 (June 1983), tables 61, 63, and 118; 1970 Census of Population, Detailed Characteristics, Hawaii, PC(1)-D13 (July 1972), tables 141 and 144.

Table 27.-- PLACE OF BIRTH, CITIZENSHIP, AND LENGTH OF RESIDENCE IN HAWAII, BY MILITARY STATUS: 1986

[Excludes persons in institutions or military barracks, in Kalawao, or on Niihau. Based on a sample survey of 17,107 persons]

Subject	All groups	Armed forces	Military dependents	Other civilians
Total	1,022,745	37,168	66,210	919,367
PLACE OF BIRTH				
Native born	881,296	33,793	55,951	791,551
Hawaii	657,347	1,085	10,900	645,362
Mainland U.S.	217,803	32,222	43,052	142,528
U.S. territory, possession	6,146	486	2,000	3,661
Foreign born	133,113	2,997	9,196	120,920
China (including Taiwan)	13,066	-	61	13,005
Japan	19,257	134	955	18,169
Korea	9,709	89	1,006	8,614
Philippines	66,175	1,469	4,191	60,515
Other foreign	24,904	1,306	2,983	20,616
Not reported	8,336	377	1,063	6,896
CITIZENSHIP				
U.S. citizen	953,111	95,993		857,117
Native born	881,296	89,744		791,551
Naturalized	71,815	6,249		65,566
U.S. national	1,187	-		1,187
Alien	53,329	6,663		46,666
Not reported	15,118	722		14,396
LENGTH OF RESIDENCE IN HAWAII				
Median years	16.6	2.9	2.6	19.8

Source: Hawaii State Department of Health, Hawaii Health Surveillance Program, special tabulation.

Table 28.-- LANGUAGE SPOKEN AT HOME BY PERSONS FIVE YEARS OLD AND OVER, BY ABILITY TO SPEAK ENGLISH: 1980

[Unless otherwise specified, data are based on a 15.7-percent sample]

Language	Total	Speak English -- Very well	Well	Not well	Not at all
Persons 5 and over	887,707	...	...	...	...
Speak only English at home	658,752	...	...	...	...
Speak a language other than English at home	228,955	110,338	74,946	37,797	5,874
Chinese 1/	20,066	9,057	6,096	4,014	899
Japanese 1/	80,230	39,640	24,705	13,475	2,410
Korean	9,231	2,707	3,317	2,749	458
Philippine language 1/	66,655	26,550	26,311	12,533	1,261
Spanish	11,933	8,752	2,460	697	24
All others	40,840	23,632	12,057	4,329	822
Speak a Polynesian language at home 2/	21,740	12,220	7,200	2,220	100
Hawaiian 2/ 3/	9,060	6,580	2,200	240	40
Samoan 2/	11,020	5,000	4,320	1,640	60
Tongan 2/	1,180	360	560	260	-
Other Polynesian 2/	480	280	120	80	-

1/ For statistics on individual Chinese, Japanese, and Philippine languages or dialects, see Data Book 1984, tables 38 and 39.

2/ Based on the 5-percent Public Use Microdata Sample.

3/ For demographic characteristics of persons speaking Hawaiian at home, see Data Book 1986, table 32. By race, this group included 7,920 Hawaiians, 580 whites, 240 Chinese, and 320 members of other races. For all 9,060, the median age was 44.4 years.

Source: U.S. Bureau of the Census, 1980 Census of Population, Detailed Population Characteristics, Hawaii, PC80-1-D13 (October 1983), table 197, and Census of Population and Housing, 1980, Public Use Microdata Sample A-5 Percent (Hawaii), special tabulation by Hawaii State Data Center.

Table 29.-- GENERAL POPULATION CHARACTERISTICS, BY COUNTIES: 1980

Subject	State total	City and Co. of Honolulu	Other counties			
			Hawaii	Kalawao	Kauai	Maui
RESIDENT POPULATION						
Total persons	964,691	762,565	92,053	144	39,082	70,847
Percent:						
Change 1970-80	25.3	20.9	45.0	-16.3	31.3	54.1
Under 18 years	28.6	28.1	30.6	0	30.5	29.5
18 to 64 years	63.5	64.6	59.2	74.3	58.4	60.5
65 years and over	7.9	7.3	10.2	25.7	11.1	9.9
Median age	28.3	28.0	29.4	58.1	29.8	29.6
Fertility ratio 1/	307	295	370	0	369	328
15 years and over - Percent now married, including separated:						
Male	56.3	55.7	59.2	51.7	59.9	58.2
Female	58.3	57.8	60.6	54.4	62.3	59.1
In group quarters:						
Total	39,599	36,700	1,617	40	403	839
Percent of total persons	4.1	4.8	1.8	27.8	1.0	1.2
HOUSEHOLDS AND FAMILIES						
Households	294,052	230,214	29,237	71	12,020	22,510
Percent change, 1970-80 .	44.8	39.7	69.4	(NA)	45.1	76.1
Persons per household ...	3.15	3.15	3.09	1.46	3.22	3.11
Families	226,035	176,916	22,784	30	9,475	16,830
Persons per family	3.61	3.62	3.51	2.00	3.62	3.59

1/ Children under 5 years per 1,000 women 15 to 49 years.

Source: U.S. Bureau of the Census, Census of Population: 1980, General Population Characteristics, Hawaii, PC80-1-B13 (1982), tables 14 , 21, 47, and 49.

Table 30.-- POPULATION CHARACTERISTICS, BY MILITARY STATUS: 1980

Subject	All groups	Armed Forces	Military dependents 1/	Other civilians
Number	964,691	58,443	61,974	844,274
Race (percent):				
White	34.4	73.7	67.2	29.3
Black	1.8	13.3	7.5	0.6
American Indian, Eskimo, Aleut	0.3	0.9	0.4	0.3
Asian and Pacific Islander	61.2	8.1	20.8	67.9
Other	2.2	3.9	4.0	2.0
Spanish origin (percent)	7.4	7.1	8.9	7.3
Males per 100 females	105.4	1,224.9	48.3	99.3
Median age (years)	28.4	24.9	14.3	29.7
Population per household	3.14	3.29		3.12
Percent in group quarters	4.1	41.1	6.8	1.8
Percent of persons 15 and over married:				
Male	55.7	52.6	21.3	56.7
Female	57.3	44.4	88.9	55.0
Children ever born per 1,000 women 15-44	1,219	460	1,499	1,201
Place of birth (percent):				
Hawaii	57.8	4.2	17.1	64.5
Different State	25.8	87.2	64.2	18.7
Foreign country	14.2	6.1	12.0	14.9
Residence in 1975 (percent):				
Same house as 1980	49.3	3.6	7.2	55.3
Different State	16.9	79.7	65.6	9.2
Abroad	5.9	9.7	14.3	5.1
Percent of persons 25 and over high school graduates	73.8	95.5	84.6	72.2
Percent of persons 16 and over in labor force	68.3	100.0	44.6	66.5
Percent of civilian labor force unemployed	4.7	...	12.2	4.5
Percent of employed persons in managerial and professional specialty occupations	23.5	...	19.4	23.6
Median income in 1979 (dollars):				
Persons	7,325	8,123	3,273	7,532
Families	22,648	14,055	...	24,234
Unrelated individuals	7,154	6,608	...	7,791

1/ Military dependents are defined as civilians in families in which either the householder or the householder's spouse is in the Armed Forces.

Source: Hawaii State Department of Planning and Economic Development, Population Characteristics of Hawaii by Military Status, 1980 (Statistical Report 163, September 30, 1983), tables 1 and 2.

Table 31.-- HOUSEHOLD TYPE AND RELATIONSHIP: 1980

Household type and relationship	State total	Oahu	Other islands
Total persons	964,691	762,565	202,126
In households	925,092	725,865	199,227
Householder	294,052	230,214	63,838
Family householder: Male	190,426	148,549	41,877
Female	35,609	28,367	7,242
Nonfamily householder: Male	37,333	28,632	8,701
Female	30,684	24,666	6,018
Spouse	185,698	145,333	40,365
Child	330,281	260,999	69,282
Brother or sister	11,115	8,989	2,126
Parent	11,493	9,231	2,262
Other relative	50,361	38,890	11,471
Nonrelatives	42,092	32,209	9,883
In group quarters	39,599	36,700	2,899
Inmate of institution	5,785	4,565	1,220
Other	33,814	32,135	1,679
Persons 75 years and over living alone	5,075	3,560	1,515
Persons per household	3.15	3.15	3.12
Persons per family	3.61	3.62	3.56
Persons under 18 years	275,583	214,563	61,020
Householder or spouse	387	295	92
Own child	243,671	190,289	53,382
In married-couple family	204,455	159,866	44,589
With female householder, no husband present	32,392	25,584	6,858
With male householder, no wife present	6,824	4,889	1,935
Other relatives	25,918	19,832	6,086
Nonrelatives	3,985	2,941	1,044
Inmate of institution	387	349	38
Other, in group quarters	1,235	857	378
Persons 65 years and over	76,150	55,368	20,782
Family householder: Male	25,453	17,831	7,622
Female	3,959	3,024	935
Spouse	13,763	9,755	4,008
Other relatives	14,015	10,945	3,070
Nonrelatives	1,887	1,396	491
Nonfamily householder: Male	4,670	3,046	1,624
Female	8,705	6,548	2,157
Inmate of institution	2,961	2,116	845
Other, in group quarters	737	707	30

Source: U.S. Bureau of the Census, Census of Population: 1980, General Population Characteristics, Hawaii, PC80-1-B13 (1982), table 21.

Table 32.-- FAMILY TYPE BY PRESENCE OF OWN CHILDREN: 1980

Presence of own children	All families	Married couple families	Female householder no husband present
Total	226,035	185,698	29,422
With own children under 18 years	123,087	101,644	17,410
With own children under 6 years only	32,604	27,528	4,131
With own children under 6 and 6 to 17 years	25,070	21,883	2,779
Number of own children under 18 years	243,671	204,455	32,392
Number of own children under 6 years	79,619	68,656	9,230

Source: U.S. Bureau of the Census, Census of Population: 1980, General Population Characteristics, Hawaii, PC80-1-B13 (1982), table 21.

Table 33.-- HOUSEHOLDS AND HOUSEHOLD SIZE: 1940 TO 1987

[As of April 1, 1940-1980, and July 1 thereafter. For annual estimates, 1971-1979, see Data Book 1985, table 585]

Year	Households	Average size	Year	Households	Average size
1940 ...	86,855	4.46	1982 ...	310,000	(NA)
1950 ...	111,858	4.14	1983 ...	316,000	(NA)
1960 ...	153,064	3.87	1984 ...	323,000	(NA)
1970 ...	203,088	3.59	1985 ...	330,000	(NA)
1980 ...	294,052	3.15	1986 ...	336,000	3.04
1981 ...	304,000	(NA)	1987 ...	345,000	3.02

NA Not available.

Source: Robert C. Schmitt, Historical Statistics of Hawaii (University Press of Hawaii, 1977), p. 33. U.S. Bureau of the Census, Census of Population: 1980, General Population Characteristics, Hawaii, PC80-1-B13 (1982), table 14; "State Population and Household Estimates, With Age, Sex, and Components of Change: 1981-87" Current Population Reports, Population Estimates and Projections, Series P-25, No. 1024 (May 1988), pp. 82-83.

Table 34.-- HOUSEHOLDS AND HOUSEHOLD SIZE, BY COUNTIES: 1980 AND 1985

County	Households				Average population per household	
	July 1, 1985 (estimate)	April 1, 1980 (census)	Change, 1980-85		July 1, 1985 (estimate)	April 1, 1980 (census)
			Number	Percent		
State total ..	330,000	294,052	36,000	12.4	3.06	3.15
Hawaii	34,900	29,237	5,700	19.4	3.08	3.09
Honolulu	253,400	230,214	23,200	10.1	3.06	3.15
Kauai	14,300	12,020	2,300	18.9	3.14	3.22
Maui	27,700	22,581	5,200	22.8	3.04	3.10

Source: U.S. Bureau of the Census, "Estimates of Households, for Counties: July 1, 1985," *Current Population Reports, Special Studies*, Series P-23, No. 156 (March 1988), p. 19.

Table 35.-- HOUSEHOLDS AND FAMILIES: ANNUAL AVERAGES, 1983-85 AND 1986-88

[Based on pooled samples of 1,730 households (5,288 persons) for 1983-1985 and 1,512 households (4,540 persons) for 1986-1988]

Subject	1983-1985	1986-1988
Number of households	327,394	349,885
Persons in households	999,381	1,033,439
Per household	3.05	2.95
Number of families	247,523	266,734
Persons in families	877,672	923,091
Per family	3.55	3.46

Source: U.S. Bureau of the Census for the U.S. Bureau of Labor Statistics, Current Population Survey (March), annual, 1983 to 1988; machine-readable data file, special tabulation by Hawaii State Data Center.

Table 36.-- MARRIED COUPLES, UNMARRIED COUPLES, AND SUBFAMILIES: 1960 TO 1980

Subject	1960	1970	1980
Married couples	120,192	154,678	198,398
Married couple families 1/	113,164	147,326	188,933
Married couple subfamilies 2/ ...	7,028	7,352	9,465
Percent	5.8	4.8	4.8
Unmarried couples	(NA)	(NA)	9,963
No persons under 15 years	(NA)	(NA)	7,529
One or more persons under 15 years	(NA)	(NA)	2,434
Subfamilies 2/	9,151	10,111	13,319
Married couple subfamilies	7,028	7,352	9,465
Mother-child subfamilies	1,731	2,288	3,132
Other subfamilies	392	471	722

NA Not available.

1/ Based on a sample; data may therefore differ somewhat from comparable data in table 37.

2/ A subfamily is a married couple (husband and wife enumerated as members of the same household) with or without children, or one parent with one or more never married children under 18 years of age, living in a household and related to either the householder or householder's spouse. The number or percentage of subfamilies is sometimes treated as a measure of the "doubling up" of households.

Source: U.S. Bureau of the Census, 1960 Census of Population, Detailed Characteristics, Hawaii, PC(1)-13D (1962), table 108; 1970 Census of Population, Detailed Characteristics, Hawaii, PC(1)-D13 (1972), table 155; 1980 Census of Population, General Social and Economic Characteristics, Hawaii, PC80-1-C13 (1983), table 64 and p. B-2; 1980 Census of Population, Detailed Population Characteristics, Hawaii, PC80-1-D13 (1983), table 208.

Table 37.-- CHURCHES, CLERGY, AND CHURCH MEMBERSHIP, BY DENOMINATIONS: 1982

Denomination 1/	Churches	Clergy	Members
Buddhist:			
Honpa Hongwanji	36	40	21,500
Kegonshu Todaiji 2/	1	2	30,000
Others 3/	52+	68+	14,030+
Christian:			
Greek Orthodox (Eastern) 4/	1	1	200
Protestant:			
Assembly of God	(NA)	(NA)	7,000
Church of Jesus Christ of Latter-Day Saints	87	(5/)	31,027
Episcopal	40	85	10,541
Jehovah's Witnesses	59	59	4,730
Lutheran	21	25	4,604
Seventh-day Adventists	21	29	4,147
Southern Baptist	60	65	11,340
United Church of Christ	113	129	17,485
United Methodist Church	31	44	6,242
Other Protestant 6/	100+	249+	10,647+
Roman Catholic 7/	64	168	209,000
Other Christian 8/	3+	4+	3,255+
Indian or Hindu 9/	23+	28+	1,880+
Jewish 4/, 10/	1+	2+	442
Muslim	1	-	500
New religious movements:			
Tenrikyo	72	300	4,500
Others 11/	20+	28+	7,785+
Shinto:			
Daijingu Temple of Hawaii 2/	(NA)	(NA)	7,500
Kotohira Jinsha Mission 2/	(NA)	(NA)	7,500
Others 12/	(NA)	(NA)	(NA)
Other religious faiths 13/	31+	(NA)	6,306+

NA Not available.

1/ Shown separately for denominations with 4,000 or more members, and selected other denominations. For a complete listing, see source.

2/ Membership figure refers to number receiving healing, blessing, or special amulet.

3/ 19 denominations, of which 17 reported data.

Continued on next page.

Table 37.-- CHURCHES, CLERGY, AND CHURCH MEMBERSHIP, BY DENOMINATIONS: 1982 -- Con.

4/ Membership figure refers to families rather than individuals.

5/ Lay leaders.

6/ 19 denominations, of which 12 reported number of churches and clergy and 11 reported membership.

7/ Membership in 1985 was estimated at 217,000 (Honolulu Advertiser, May 31, 1986, p. A-9).

8/ 4 denominations (Christian Science, Religious Science, Society of Friends, and Unity), of which 3 reported data.

9/ 9 denominations, of which 8 reported data.

10/ 2 denominations, of which 1 reported data.

11/ 6 denominations, of which 5 reported data.

12/ 3 denominations, of which none reported data.

13/ 4 denominations (Baha'i, Scientology, Unification Church, and Unitarian), of which 3 reported data.

Source: Survey by Department of Religion, University of Hawaii, reported in Geography Department, University of Hawaii, Atlas of Hawaii, Second Edition (1983), p. 133.

Table 38.-- MARITAL STATUS, BY SEX: ANNUAL AVERAGE, 1986-88

[Excludes persons in institutions or military group quarters. Based on a pooled sample of 4,540 persons of all ages]

Marital status	Male	Female
Persons 15 years old and over	413,802	400,194
Single, never married	143,927	84,808
Married, except separated	233,840	233,662
Separated	5,224	5,285
Widowed	7,401	43,594
Divorced	23,411	32,846

Source: U. S. Bureau of the Census for the U.S. Bureau of Labor Statistics, Current Population Survey (March), annual, 1986 to 1988, machine-readable data file, special tabulation by Hawaii State Data Center.

Table 39.-- COMPONENTS OF CHANGE IN THE RESIDENT POPULATION, BY MILITARY STATUS AND COUNTIES: 1980 TO 1987

[April 1, 1980 to June 30, 1987. For 1970-1980, see Data Book 1985, table 45]

Military status and county	Net change	Vital events: Natural increase	Vital events: Live births	Vital events: Deaths	Net migration 1/
THE STATE					
State total	117,800	94,700	133,800	39,100	23,100
Armed forces	1,100	-200	-	200	1,200
Military dependents	800	27,500	28,100	600	-26,600
Other residents	115,900	67,500	105,800	38,300	48,500
Annual average	16,000	9,300	14,600	5,300	6,700
Percent distribution	100.0	58.2	...	...	41.8
COUNTIES					
City & Co. of Honolulu	68,000	74,100	103,100	29,000	-6,100
Armed forces	1,100	-200	-	200	1,200
Military dependents	800	27,500	28,100	600	-26,600
Other residents	66,100	46,800	75,000	28,200	19,300
Other counties	49,800	20,600	30,700	10,100	29,200
Hawaii	22,400	9,100	13,800	4,700	13,300
Kauai	8,500	3,800	5,800	2,000	4,700
Maui and Kalawao	18,900	7,700	11,100	3,400	11,200

1/ Includes net changes in military status.

Source: Federal-State Cooperative Program for Local Population Estimates.

Table 40.-- CHARACTERISTICS OF INTENDED RESIDENTS ARRIVING FROM THE MAINLAND UNITED STATES: 1987

Military status of family head	Persons per party	Median age (years)	Males per 100 females	From Western States (percent)	Retired party heads (percent)
Total	1.65	23.7	135.0	24.0	1.6
Civilian only	1.35	27.6	87.0	47.0	6.8

Source: Hawaii State Department of Business and Economic Development, special tabulation from Hawaii Visitors Bureau data.

Table 41.-- IMMIGRANTS ADMITTED, TOTAL AND THROUGH HONOLULU: 1978 TO 1988

[Years ended September 30. Data refer to immigrants admitted to the United States, reporting Hawaii as their State of intended permanent residence]

Year	All immigrants admitted 1/	Admitted through Honolulu 2/	Year	All immigrants admitted 1/	Admitted through Honolulu 2/
1978	9,053	5,870	1984	8,981	5,476
1979	8,944	6,882	1985	7,868	5,599
1980	(NA)	5,682	1986	7,814	5,748
1981	(NA)	6,422	1987	6,796	5,465
1982	8,557	6,890	1988	(NA)	4,199
1983	7,118	5,238			

NA Not available.

1/ Through any port of entry. Totals include non-immigrant arrivals who changed their status after entry.

2/ Totals exclude persons admitted through ports other Honolulu and also non-immigrant arrivals who changed their status after entry.

Source: All-port admissions from U.S. Immigration and Naturalization Service, records; admissions through Honolulu from INS Honolulu office, monthly tabulations.

Table 42.-- IMMIGRANTS ADMITTED, BY COUNTRIES OF BIRTH: 1983 TO 1987

[Years ended September 30. Data refer to immigrants admitted to the United States, reporting Hawaii as their State of intended permanent residence, and include non-immigrant arrivals who changed their status after entry]

Country of birth	1983	1984	1985	1986	1987
All countries	7,118	8,981	7,868	7,814	6,796
Canada	109	97	130	115	131
China and Taiwan	676	825	799	724	678
Japan	269	223	286	240	265
Korea	883	948	988	894	912
Philippines	4,070	4,662	4,231	4,508	3,784
Vietnam	139	795	280	296	144
Other countries	972	1,431	1,154	1,037	882

Source: U.S. Immigration and Naturalization Service, records.

Table 43.-- SOUTHEAST ASIAN REFUGEE ARRIVALS: 1980 TO 1986

Fiscal year	Number	Fiscal year	Number
1980	2,385	1984	291
1981	1,422	1985	302
1982	642	1986	251
1983	333		

Source: Data from U.S. Department of Health and Human Services, Office of Refugee Resettlement, cited in *Statistical Abstract of the United States* for 1984-1988.

Table 44.-- PERSONS NATURALIZED, BY COUNTRIES OF FORMER ALLEGIANCE: 1981 TO 1986

[Years ended September 30]

Year	All countries	China and Taiwan	Korea	Philippines	United Kingdom	All other
1981	3,946	317	730	2,014	105	780
1982	2,750	176	520	1,489	66	499
1983	6,668	534	1,032	3,693	301	1,108
1984	6,448	289	787	4,200	192	980
1985	4,291	238	561	2,434	93	965
1986	4,760	286	594	2,669	105	1,106

Source: U.S. Immigration and Naturalization Service, records.

Table 45.-- RESIDENCE ONE YEAR EARLIER, 1981-1984, 1986-1988, AND FIVE YEARS EARLIER, 1985

[Excludes persons in military group quarters. Based on a sample of 2,428 households (7,512 persons of all ages) for 1981-1984, 532 households (1,616 persons) for 1985, 1,512 households (4,540 persons) for 1986-1988]

Subject	Total population 1/	Nonmovers	Different house		
			Same State	Different State	Different country
Residence 1 year earlier:					
Annual average, 1981-1984	960,402	782,172	129,081	39,473	9,676
Annual average, 1986-1988	1,028,075	841,533	127,181	47,999	11,362
Residence 5 years earlier, 1985	921,236	534,131	252,978	107,359	26,768

1/ Excludes persons under 1 year old in 1981-1984, 1986-1988, and under 5 years old in 1985.

Source: U.S. Bureau of the Census for U.S. Bureau of Labor Statistics, Current Population Survey (March), annual, 1981 to 1988; machine-readable data file, special tabulation by Hawaii State Data Center.

Table 46.-- IN-MIGRATION, TOTAL AND CIVILIAN, BY ORIGIN: 1976 TO 1986

[Hawaii residents reporting different state or country of residence 1 year prior to survey. Excludes persons in institutions or military barracks, in Kalawao, or on Niihau]

Military status and year surveyed	Number, 1 year old and over			Percent 1/		
	All in-migrants	From U.S. Mainland	From other countries 2/	All in-migrants	From U.S. Mainland	From other countries 2/
Total:						
1976	52,001	40,590	11,411	6.5	5.1	1.4
1977	49,931	40,959	8,972	6.0	4.9	1.1
1978	49,768	39,833	9,935	5.9	4.7	1.2
1979	42,690	33,646	9,044	5.0	3.9	1.1
1980	37,312	30,082	7,230	4.1	3.3	0.8
1981	44,529	34,754	9,775	4.9	3.8	1.1
1982	46,342	38,683	7,659	5.0	4.1	0.8
1983	50,303	42,037	8,266	5.3	4.4	0.9
1984 3/ ..	48,341	42,533	5,808	5.0	4.4	0.6
1985	38,970	31,744	7,226	4.0	3.2	0.7
1986	38,684	31,194	7,491	3.9	3.1	0.8
Civilian: 4/						
1976	25,420	16,577	8,843	3.7	2.4	1.3
1977	25,343	19,466	5,877	3.4	2.6	0.8
1978	27,344	20,683	6,661	3.6	2.7	0.9
1979	22,191	15,278	6,913	2.8	2.0	0.9
1980	18,471	13,255	5,216	2.3	1.6	0.6
1981	23,756	16,272	7,484	2.9	2.0	0.9
1982	25,460	20,762	4,698	3.0	2.5	0.6
1983	22,908	17,199	5,709	2.7	2.0	0.7
1984 3/ ..	23,735	20,050	3,685	2.7	2.3	0.4
1985	17,838	12,974	4,864	2.0	1.5	0.5
1986	21,178	15,556	5,622	2.4	1.7	0.6

1/ Base excludes persons under 1 and those not reporting residence one year earlier.

2/ Includes U.S. territories and possessions.

3/ Persons in households living on military bases were omitted from the 1984 survey, although included in other years. For purposes of this table, such persons were assumed to have the same response distribution as members of military households living in the civilian community.

4/ Excludes military dependents.

Source: Hawaii State Department of Health, Hawaii Health Surveillance Program, special tabulations.

Table 47.-- RESIDENCE ONE YEAR EARLIER, BY MILITARY STATUS: 1985 AND 1986

[Excludes persons under one year old and residents of military barracks, institutions, Kalawao, and Niihau. Based on a sample survey of 17,642 persons 1 year old and over in 1985 and 16,862 persons 1 year old and over in 1986]

Place of residence one year earlier	All groups	Armed forces	Military dependents	Other civilians
1985				
Population 1 and over	995,306	35,821	60,386	899,099
Same house	851,010	22,971	40,781	787,258
Different house, same island	88,098	5,092	4,885	78,121
Different island	6,399	165	353	5,881
Different state	31,744	6,250	12,520	12,974
U.S. territory or possession	180	-	-	180
Different country	7,046	997	1,365	4,684
Previous residence not reported .	10,830	347	482	10,001
Migrants 1/	38,970	7,247	13,885	17,838
Percent of number reporting ...	4.0	20.4	23.2	2.0
1986				
Population 1 and over	1,007,462	37,168	62,785	907,508
Same house	865,198	23,849	43,765	797,584
Different house, same island	87,607	6,245	6,750	74,612
Different island	4,504	239	65	4,200
Different state	31,194	5,265	10,372	15,556
U.S. territory or possession	802	-	52	750
Different country	6,689	629	1,188	4,872
Previous residence not reported .	11,468	940	594	9,934
Migrants 1/	38,684	5,895	11,612	21,178
Percent of number reporting ...	3.9	16.3	18.7	2.4

1/ From different state, territory, or country.

Source: Hawaii State Department of Health, Hawaii Health Surveillance Program, special tabulation.

Table 48.-- LIKELIHOOD OF OUT-MIGRATION, TOTAL AND CIVILIAN: 1980 TO 1986

[Based on the response to the question, "How likely is it that this person will be living some place other than Hawaii one year from today?" The sample excluded persons living in institutions or barracks, in Kalawao, or on Niihau]

Military status and year surveyed	Cumulative number			Cumulative percent 1/		
	Some possibility 2/	Good chance 3/	Almost certain	Some possibility 2/	Good chance 3/	Almost certain
Total:						
1980	55,989	35,521	30,740	6.1	3.9	3.3
1981	55,159	39,431	34,857	5.9	4.2	3.7
1982	56,298	40,169	32,190	5.9	4.2	3.4
1983	55,019	37,697	30,661	5.7	3.9	3.2
1984 4/	56,401	44,237	35,995	5.7	4.5	3.6
1985	60,929	44,637	38,648	6.1	4.5	3.9
1986	57,509	42,132	37,095	5.7	4.2	3.7
Civilian: 5/						
1980	32,216	15,375	12,102	3.9	1.9	1.5
1981	26,388	14,265	11,614	3.1	1.7	1.4
1982	31,664	17,467	13,087	3.7	2.0	1.5
1983	29,476	16,876	10,827	3.4	2.0	1.3
1984 4/	27,109	16,590	11,911	3.1	1.9	1.3
1985	28,527	14,613	12,008	3.2	1.6	1.3
1986	26,588	14,541	11,314	2.9	1.6	1.2

1/ Based on number reporting likelihood.

2/ Reporting either "Some possibility of living elsewhere," "A good chance of living elsewhere," or "Almost certain to be living elsewhere."

3/ Reporting either "A good chance of living elsewhere" or "Almost certain to be living elsewhere."

4/ Persons in households living on military bases were omitted from the 1984 survey, although included in other years. For purposes of this table, such persons were assumed to have the same response distribution as members of military households living in the civilian community.

5/ Excluding members of the armed forces and their dependents.

Source: Hawaii State Department of Health, Hawaii Health Surveillance Program.

Table 49.-- LIKELIHOOD OF OUT-MIGRATION, BY MILITARY STATUS: 1985 AND 1986

[Based on response to question, "How likely is it that this person will be living some place other than Hawaii one year from today?" asked of samples of 17,934 persons in 1985 and 17,107 persons in 1986. Excludes persons living in institutions or barracks, in Kalawao, or on Niihau]

Likelihood of out-migration	All groups	Armed forces	Military dependents	Other civilians
1985				
Total	1,011,882	35,821	64,281	911,780
Almost certain to be living in Hawaii	936,670	23,230	43,539	869,901
Some possibility of living elsewhere	16,292	712	1,666	13,914
A good chance of living elsewhere ...	5,989	1,129	2,255	2,605
Almost certain to be living elsewhere	38,648	10,311	16,329	12,008
Not reported	14,283	438	492	13,353
1986				
Total	1,022,746	37,169	66,211	919,366
Almost certain to be living in Hawaii	946,243	24,670	44,421	877,152
Some possibility of living elsewhere	20,414	1,699	3,441	15,274
A good chance of living elsewhere ...	5,037	784	1,026	3,227
Almost certain to be living elsewhere	37,095	9,131	16,650	11,314
Not reported	13,956	885	672	12,399

Source: Hawaii State Department of Health, Hawaii Health Surveillance Program, special tabulation.

Section 2

VITAL STATISTICS AND HEALTH

This section presents data on births, deaths, marriages, divorces, diseases, accidents, alcohol and drug use, height and weight, hospitals, and health personnel.

Vital indexes generally reflect the high health standards of Hawaii. Expectation of life at birth in 1984-86 was 75.37 years for males and 80.92 years for females. There were 6,149 resident deaths in 1987, or 5.7 per 1,000 resident population. Deaths under one year of age per 1,000 live births numbered 9.2 in 1987. Diseases of the heart have accounted for almost a third of all deaths in recent years; cancer, for almost one-fourth. Resident live births in 1987 numbered 18,555, or 17.1 per 1,000 resident population. The total fertility rate for civilians fell from 3,360 per 1,000 women in 1960 to 1,891 in 1985. Fully 98 percent of all babies were born in hospitals in 1987, and 21 percent were born to military couples. One out of five births was to an unmarried woman. There were 7,264 fetal deaths in 1987, including 5,971 elective abortions. Marriages numbered 16,597 in 1987, with about 41 percent accounted for by nonresidents. Divorces reached a 1987 total of 4,419. The State had 22 acute care hospitals (with 2,855 beds), 36 long-term care facilities (with 2,995 beds), and nine specialty care facilities (with 821 beds) in 1988. There were 2,277 physicians and surgeons, 881 dentists, 7,070 professional nurses, and 520 pharmacists licensed and living in Hawaii as of February 1988. Acute conditions per 100 persons numbered 210 in 1986, with respiratory conditions the most common complaint (at 148 cases per 100 persons). Among chronic conditions reported in the 1986 survey data, the most frequently mentioned were hypertension without heart involvement (7.7 per 100 persons), hayfever (5.7), and impairments of the back or spine (5.1). The most common communicable diseases reported to authorities in 1987 were scarlet fever, with 3,620 cases, and chickenpox, with 1,484, but the most fatal was AIDS (41 deaths). State mental health facilities served 8,220 patients in 1987, but the number of in-patients at the end of the year was only 248. Among persons 18 years old and over in 1984, 53 percent used alcohol, eight percent were heavy drinkers, 43 percent used drugs, and three percent were heavy drug users. The average adult male was 67.5 inches tall and weighed 159.5 lbs.; the average adult female was 62.6 inches and 127.9 lbs.

The major sources for data on vital statistics and health are the annual statistical reports of the Hawaii State Department of Health. Long-term trends are traced in Historical Statistics of Hawaii, Section 2. Sections 2 and 3 of the Statistical Abstract of the United States: 1988 contain similar data for the nation as a whole.

Table 50.-- BIRTHS AND DEATHS: 1970 TO 1987

Calendar year	Resident births 1/	Resident deaths 1/	Rates per 1,000 resident population 2/		Rates per 1,000 live births 3/		
			Births	Deaths	Illegitimate births	Fetal deaths 4/	Infant deaths 5/
1970 ...	16,361	3,971	21.2	5.1	95.8	20.6	19.1
1971 ...	15,780	4,130	19.7	5.2	88.4	23.5	16.0
1972 ...	15,364	4,245	18.5	5.1	93.0	22.8	17.5
1973 ...	15,328	4,356	18.0	5.1	104.0	16.4	13.7
1974 ...	15,472	4,286	17.8	4.9	108.8	16.3	16.0
1975 ...	15,689	4,272	17.7	4.8	123.2	18.9	13.7
1976 ...	16,292	4,349	18.0	4.8	125.0	20.8	11.2
1977 ...	16,874	4,349	18.4	4.7	143.3	21.6	12.3
1978 ...	16,717	4,508	17.9	4.8	160.1	13.5	12.0
1979 ...	17,513	4,791	18.4	5.0	163.5	13.1	10.9
1980 ...	18,129	4,903	18.7	5.1	175.6	15.3	10.8
1981 ...	18,174	4,927	18.5	5.0	181.8	13.1	10.5
1982 ...	18,675	5,123	18.7	5.1	186.3	12.7	8.9
1983 ...	19,090	5,409	18.7	5.3	197.8	11.4	10.0
1984 ...	18,667	5,571	18.0	5.4	191.8	9.5	10.9
1985 ...	18,267	5,751	17.4	5.5	201.3	9.7	9.1
1986 ...	18,253	5,788	17.1	5.4	203.9	11.0	9.2
1987 ...	18,555	6,149	17.1	5.7	213.7	9.2	8.8

1/ Events occurring in Hawaii. Data include births to military couples and deaths of armed forces and their dependents, but exclude nonresident births and deaths, as well as resident births and deaths occurring out of State.

2/ Based on estimates in present report, table 2.

3/ Place of occurrence basis.

4/ 20 weeks gestation and over. Includes elective abortions.

5/ Under 1 year of age.

Source: Hawaii State Department of Health, Statistical Report (annual), and records.

Table 51.-- BIRTHS AND BIRTH RATES, BY MILITARY STATUS: 1977 TO 1987

[Place of occurrence basis]

Subject and year	All groups	Civilians			Armed forces and dependents
		All civilians	Military dependents	Other civilians	
Live births:					
1977	16,983	16,983	3,771	13,212	3,771
1978	16,762	16,762	3,656	13,106	3,656
1979	17,568	17,568	3,797	13,771	3,797
1980	18,216	18,216	3,750	14,466	3,750
1981	18,230	18,230	3,502	14,728	3,502
1982	18,735	18,735	4,007	14,728	4,007
1983	19,164	19,164	4,093	15,071	4,093
1984	18,756	18,756	3,976	14,780	3,976
1985	18,329	18,329	4,043	14,286	4,043
1986	18,341	18,341	3,952	14,389	3,952
1987	18,698	18,698	3,966	14,732	3,966
Birth rates: 1/					
1977	17.1	18.1	58.0	15.2	31.0
1978	16.5	17.5	59.8	14.6	30.6
1979	16.8	17.8	58.9	15.0	31.0
1980	17.3	18.3	58.5	15.5	30.7
1981	17.1	18.1	54.5	15.6	29.0
1982	17.2	18.1	60.1	15.2	33.0
1983	17.2	18.1	61.8	15.2	33.7
1984	16.5	17.3	59.3	14.6	32.0
1985	15.9	16.8	62.9	13.9	33.5
1986	15.5	16.3	59.7	13.6	31.8
1987	15.6	16.4	61.2	13.7	32.3

1/ Per 1,000 de facto population in each group, based on estimates in present report, tables 2 and 3.

Source: Hawaii State Department of Health, Research and Statistics Office, records.

Table 52.-- DEATHS AND DEATH RATES, BY MILITARY STATUS: 1977 TO 1987

[Place of occurrence basis]

Subject and year	All groups	Armed forces	Civilians 1/ All civilians	Civilians 1/ Military dependents	Civilians 1/ Other civilians	Armed forces and dependents
Deaths:						
1977	4,724	76	4,648	93	4,555	169
1978	4,852	80	4,772	85	4,687	165
1979	5,137	85	5,052	86	4,966	171
1980	5,204	69	5,135	82	5,053	151
1981	5,269	73	5,196	83	5,113	156
1982	5,495	74	5,421	86	5,335	160
1983	5,725	97	5,628	85	5,543	182
1984	5,942	73	5,869	86	5,783	159
1985	6,116	63	6,053	83	5,970	146
1986	6,171	59	6,112	85	6,027	144
1987	6,490	64	6,426	83	6,343	147
Death rates: 2/						
1977	4.8	1.3	5.0	1.4	5.2	1.4
1978	4.8	1.4	5.0	1.4	5.2	1.4
1979	4.9	1.5	5.1	1.3	5.4	1.4
1980	4.9	1.2	5.1	1.3	5.4	1.2
1981	4.9	1.3	5.2	1.3	5.4	1.3
1982	5.0	1.3	5.2	1.3	5.5	1.3
1983	5.1	1.8	5.3	1.3	5.6	1.5
1984	5.2	1.3	5.4	1.3	5.7	1.3
1985	5.3	1.1	5.5	1.3	5.8	1.2
1986	5.2	1.0	5.4	1.3	5.7	1.2
1987	5.4	1.1	5.6	1.3	5.9	1.2

1/ Death rates for military dependents based on 1970 and 1980 age and sex composition of military dependents and 1970 and 1980 age-sex-specific death rates for all civilians. Deaths of civilians other than military dependents calculated as residual.

2/ Per 1,000 de facto population in each group, based on estimates in present report, tables 2 and 3.

Source: Hawaii State Department of Health, Research and Statistics Office, records.

Table 53.-- LIVE BIRTHS, STANDARD FETAL DEATHS, AND ELECTIVE ABORTIONS: 1970 TO 1987

[Place of residence basis]

Calendar year	Total deliveries		Live births	Standard fetal deaths	Elective abortions 2/
	Number	Rate 1/			
1970 3/ ...	20,578	26.7	16,361	1,458	2,759
1971	21,476	26.8	15,780	1,575	4,121
1972	21,468	25.9	15,364	1,582	4,522
1973	21,374	25.1	15,328	1,560	4,486
1974	21,071	24.3	15,472	1,572	4,027
1975	21,481	24.2	15,689	1,476	4,316
1976	22,915	25.3	16,292	1,675	4,948
1977	23,502	26.6	16,874	1,578	5,050
1978	23,990	25.8	16,717	1,467	5,806
1979	25,213	26.4	17,513	1,683	6,017
1980	26,241	27.1	18,129	1,716	6,396
1981	26,452	27.0	18,174	1,661	6,617
1982	26,468	26.5	18,675	1,618	6,175
1983	26,709	26.2	19,090	1,627	5,992
1984	25,573	24.7	18,667	1,629	5,277
1985	25,335	24.1	18,267	1,473	5,595
1986	25,312	23.8	18,253	1,412	5,647
1987	25,931	24.0	18,555	1,405	5,971

1/ Per 1,000 resident population, July 1. From present report, table 2.

2/ Most legal restrictions on abortion were abolished as of March 11, 1970.

3/ For earlier years, 1952-1969, see Data Book 1986, table 59.

Source: Hawaii State Department of Health, Annual Report, Statistical Supplement, 1970-1986, and records.

Table 54.-- BIRTHS AND DEATHS, BY PLACE OF OCCURRENCE AND RESIDENCE:
1986 AND 1987

Event and year	Occurring in Hawaii				Hawaii residents	
	Total	Resident	Non-resident	Not reported	Total	Out of State 1/
Births:						
1986 ...	18,341	18,253	86	2	18,277	24
1987 ...	18,698	18,555	143	-	18,595	40
Deaths:						
1986 ...	6,171	5,788	382	1	5,837	49
1987 ...	6,490	6,147	343	-	6,214	67

1/ Mainland U.S., U.S. territories and possessions, and Canada.

Source: Hawaii State Department of Health, Statistical Report, 1986 and records.

Table 55.-- FERTILITY RATES, BY MILITARY STATUS: 1980 AND 1985

[Military dependents are included in the military category. For 1960 and 1970 data, see Data Book 1987, table 60]

Military status	Crude birth rate 1/		General fertility rate 2/		Total fertility rate 3/	
	1980	1985	1980	1985	1980	1985
Total	18.8	17.4	78.7	73.1	2,084	2,082
Civilian	16.5	15.3	68.9	64.3	1,871	1,891
Military	35.0	33.5	147.5	141.5	3,496	3,190

1/ Annual number of live births per 1,000 resident population.

2/ Annual number of live births per 1,000 women 15-44 years of age.

3/ Average number of children to whom 1,000 women would give birth according to a set of fertility rates providing the women survive the childbearing years.

Source: 1980 calculated by Eleanor C. Nordyke, East-West Population Institute; 1985 estimated by Hawaii State Data Center.

Table 56.-- CHARACTERISTICS OF RESIDENT BIRTHS: 1984 TO 1987

[Excludes births to Hawaii residents occurring out of state]

Subject	1984	1985	1986	1987
Number of resident births	18,667	18,267	18,253	18,555
City and County of Honolulu	14,375	14,021	14,074	14,160
Percent on Oahu	77.0	76.8	77.1	76.3
Hawaii County	1,895	1,873	1,800	1,915
Kauai County	778	778	822	865
Maui County (incl. Kalawao)	1,619	1,595	1,557	1,615
Percent attended by M.D. or O.D. in hospital 1/	98.3	98.0	98.3	98.3
Males per 100 females	107.1	108.2	105.7	107.6
Median weight of single births (grams)	3,293	3,307	3,306	3,308
Percent low birth weight (under 2,500 grams)	7.3	6.6	6.1	7.2
Percent single births under 40 weeks gestation	51.7	51.3	51.3	52.2
Percent plural	1.8	1.8	2.0	2.4
Percent with 1 or more congenital malformations	1.1	1.0	1.1	1.4
Percent illegitimate	19.2	20.0	20.4	21.4
Percent with prenatal visit in first three months	75.4	74.7	76.4	73.9
Percent first child born to mother	32.4	31.9	31.6	29.7
Percent first child born alive to mother	42.6	41.7	42.5	41.3
Median age of mothers (years)	25	26	26	26.8
Median age of known fathers (years)	29	29	29	29.3

1/ Place of occurrence basis.

Source: Hawaii State Department of Health, Statistical Report (annual), and records.

Table 57.-- RESIDENT BIRTHS, MIXED AND UNMIXED, BY MILITARY STATUS OF FATHER: 1987

[Based on data for 12 specified races]

Military status of father	Total births	Unmixed	Mixed 1/			Not certain 2/
			Total	Part Haw'n	No Haw'n blood	
All groups	18,555	8,336	9,005	5,630	3,375	1,214
Military	3,917	3,058	831	190	641	28
Civilian 3/	14,638	5,278	8,174	5,440	2,734	1,186
PERCENT DISTRIBUTION						
All groups	100.0	44.9	48.5	30.3	18.2	6.5
Military	100.0	78.1	21.2	4.9	16.4	0.7
Civilian 3/	100.0	36.1	55.8	37.2	18.7	8.1

1/ Includes all Part Hawaiian births, including those in which both parents were Part Hawaiian.

2/ One or both parents of unspecified race (unless one was Part Hawaiian) or both parents classified as "other."

3/ Includes births in which father's military status was not reported.

Source: Hawaii State Department of Health, Research and Statistics Office, records.

Table 58.-- MOST COMMON FIRST NAMES ON BIRTH CERTIFICATES, BY SEX: 1987

[A total of 5,279 first names, including variant spellings, was reported for the 18,575 babies born in Hawaii in 1987]

Rank	Boys' names 1/		Girls' names 2/	
	Name	Number	Name	Number
1	Christopher	246	Ashley	223
2	Michael	198	Jessica	172
3	Joshua	187	Nicole	124
4	Matthew	187	Jennifer	120
5	Justin	175	Amanda	104
6	Ryan	152	Sarah	93
7	Brandon	156	Michelle	74
8	David	127	Lauren	70
9	James	125	Rachel	67
10	Daniel	123	Samantha	67
			Stephanie	67

1/ The shortest were A, E, H, and J (one of each). The longest was Keliihokulanileikulamanakea.

2/ The shortest was I (one); the longest, Ke'alohikaumakaokeanuenue.

Source: Hawaii State Department of Health, Research and Statistics Office, July 11, 1988.

Table 59.-- MOST COMMON SURNAMES ON BIRTH AND DEATH CERTIFICATES: 1987

Rank	Birth certificates		Death certificates	
	Surname	Births	Surname	Deaths
1	Lee	93	Lee	44
2	Smith	87	Wong	35
3	Wong	71	Ching	30
4	Kim	62	Kim	25
5	Brown	57	Higa	24
6	Williams	57	Nakamura	24
7	Young	53	Smith	24
8	Silva	52	Young	24
9	Johnson	47	Chun	23
10 (tie)	Jones	44	Yamamoto	21
	Miller	44	Silva	21

Source: Hawaii State Department of Health, special tabulation.

Table 60.-- MOST COMMON SURNAMES IN THE OAHU TELEPHONE DIRECTORY: 1978 AND 1988

Rank	1978		1988	
	Name	Columns	Name	Columns
1	Lee	18.5	Lee	20.5
2	Wong	16.0	Wong	17.0
3	Young	11.0	Young (tie)	11.0
4	Chang	10.5	Kim (tie)	11.0
5	Smith	9.5	Chang	10.75
6	Chun	9.5	Chun (tie)	9.67
7	Ching	8.75	Smith (tie)	9.67
8	Kim	8.67	Ching	8.50
9	Nakamura	8.5	Johnson	7.67
10	Lum	7.5	Lum (tie)	7.5
			Nakamura (tie)	7.5

Source: Tabulations by Bob Krauss reported in *Honolulu Advertiser*, November 25, 1978 p. A-11, and January 14, 1988, p. A-3.

Table 61.-- SELECTED LIFE TABLE VALUES, BY SEX: 1984-1986

[For earlier years and rankings relative to other States, see Data Book 1987, tables 69 and 70]

Age in years (period of life between two exact ages stated)	Of 100,000 born alive				Average remaining lifetime at beginning of year of age 1/	
	Number living at beginning of year of age		Number dying during year of age			
	Male	Female	Male	Female	Male	Female
0-1	100,000	100,000	1,020	833	75.37	80.92
5-6	98,814	99,023	17	22	71.27	76.72
15-16........	98,573	98,831	57	31	61.43	66.85
25-26	97,650	98,453	117	36	51.96	57.09
35-36	96,469	98,013	134	67	42.53	47.32
45-46	94,660	96,998	281	162	33.24	37.76
55-56	90,060	94,310	719	430	24.64	28.67
65-66	80,321	88,116	1,387	923	16.95	20.29
75-76	61,250	75,146	2,492	1,946	10.53	12.83
85-86	31,274	49,110	(2/)	(2/)	5.56	6.73

1/ For males and females combined, the average remaining lifetime at birth was 77.98 years. For the entire United States in 1985, the corresponding figure was 74.7 years (71.2 years for males and 78.2 years for females).

2/ Not calculated for this and higher ages.

Source: Robert W. Gardner, East-West Population Institute, Complete Life Tables by Age and Sex for Hawaii, 1984-86 (unpublished, September 11, 1987); Statistical Abstract of the United States: 1988, p. 70.

Table 62.-- CHARACTERISTICS OF RESIDENT DEATHS: 1984 TO 1987

[Excludes deaths of Hawaii residents occurring out of state]

Subject	1984	1985	1986	1987
Number of resident deaths	5,571	5,751	5,788	6,147
City and County of Honolulu	4,122	4,294	4,248	4,534
Hawaii County	707	715	719	784
Kauai County	272	256	313	305
Maui County (incl. Kalawao)	470	486	508	522
Males per 100 females	146.7	146.3	138.0	144.4
Median age (years)	71.1	71.9	73.2	72.2
Centenarian deaths: Male	7	10	10	14
Female	13	23	19	21
Oldest (years): Male	110	114	106	107
Female	105	109	106	103
Percent married	47.4	47.5	47.0	46.9
Deaths under 1 year	186	159	168	164
Per 1,000 live births	10.0	8.7	9.2	8.8
Fetal deaths 1/	6,906	7,068	7,178	7,264
Per 1,000 deliveries	270	279	281	392
Fetal deaths, 20 or more weeks gestation 2/	178	177	202	183
Per 1,000 live births	9.5	9.7	11.0	9.2
Standard fetal deaths 3/	1,629	1,473	1,478	1,405
Elective abortions	5,277	5,595	5,700	5,971
Per 1,000 live births	282.7	306.3	312.3	321.8

1/ Includes elective abortions.

2/ Place of occurrence basis. Includes elective abortions if 20 weeks or more.

3/ Excludes elective abortions.

Source: Hawaii State Department of Health, Statistical Report (annual).

Table 63.-- CAUSE OF DEATH, BY SEX: 1987

[Place of residence basis]

Cause of death	Both sexes	Males	Females
Total deaths	6,147	3,632	2,515
Tuberculosis	13	8	5
Syphilis	2	2	-
Other infective	122	82	40
Malignant neoplasm	1,416	830	586
Digestive organs	466	290	176
Respiratory system	381	266	115
Breast	103	-	103
Genital organs	115	67	48
Urinary organs	59	39	20
Leukemia	51	29	22
Other	241	139	102
Diabetes mellitus	178	84	94
Heart disease	2,012	1,219	793
Rheumatic	25	8	17
Hypertensive	70	36	34
Ischemic	1,129	700	429
Other heart	788	475	313
Hypertension	18	10	8
Cerebrovascular disease	451	219	232
Arteriosclerosis	45	18	27
Aneurysm	-	-	-
Other circulatory	94	62	32
Influenza/pneumonia	223	112	111
Bronchitis/emphysema/asthma	68	33	35
Peptic ulcer	23	14	9
Cirrhosis of liver	83	57	26
Nephritis and nephrosis	52	35	17
Pregnancy, birth & puerperium	1	-	1
Congenital anomalies	62	32	30
Perinatal conditions	67	42	25
Ill-defined conditions	45	37	18
Other diseases	697	385	312
Accidents	264	197	67
Motor vehicles	128	97	31
Other	136	100	36
Suicide	124	97	27
Homicide & legal intervention	46	35	11
Other external causes	31	22	9

Source: Hawaii State Department of Health, Research and Statistics Office, records.

Table 64.-- MAJOR CAUSES OF DEATH: 1908-1912 TO 1987

[Annual averages. Excludes armed forces, 1940-1962]

Year	All causes	Major causes 1/					
		Tuberculosis	Malignant neoplasms	Diseases of heart	Cerebrovascular disease	Influenza, pneumonia	Gastritis, enteritis, etc. 2/
Number:							
1908-12	3,100	365	81	181	70	335	305
1918-22	4,430	499	164	274	165	896	486
1928-32	4,073	400	236	506	233	522	277
1938-42	3,075	263	292	683	248	230	41
1948-52	2,923	108	435	868	258	102	23
1958-62	3,377	22	575	1,111	296	135	15
1970 ..	4,211	14	764	1,386	401	173	...
1980 ..	4,903	15	1,141	1,544	376	178	...
1987 ..	6,147	13	1,416	2,012	451	223	...
Percent:							
1908-12	100.0	11.8	2.6	5.8	2.3	10.8	9.8
1918-22	100.0	11.3	3.7	6.2	3.7	20.2	11.0
1928-32	100.0	9.8	5.8	12.4	5.7	12.8	6.8
1938-42	100.0	8.6	9.5	22.2	8.1	7.5	1.3
1948-52	100.0	3.7	14.9	29.7	8.8	3.5	0.8
1958-62	100.0	0.7	17.0	32.9	8.8	4.0	0.4
1970 ..	100.0	0.3	18.1	32.9	9.5	4.1	...
1980 ..	100.0	0.3	23.3	31.5	7.7	3.6	...
1987 ..	100.0	0.2	23.0	32.7	7.3	3.6	...
Rate: 3/							
1908-12	1,601	188	42	93	36	173	158
1918-22	1,663	187	62	103	62	336	182
1928-32	1,105	109	64	137	63	142	75
1938-42	739	63	70	164	60	55	10
1948-52	616	23	92	183	54	21	5
1958-62	582	4	99	192	51	23	3
1970 ..	546	2	99	180	52	22	...
1980 ..	506	2	118	159	39	18	...
1987 ..	568	1	131	186	42	21	...

Continued on next page.

Table 64.-- MAJOR CAUSES OF DEATH: 1908-1912 TO 1987 -- Con.

1/ Includes the three leading causes in each listed year.

2/ Gastritis, duodenitis, enteritis, and colitis, except diarrhea of newborn. Not separately reported in 1970 and later years.

3/ Per 100,000 resident population, 1908-1939 and 1970-1986; per 100,000 civilian population, 1940-1962. Data for periods before 1970 based on 5-year average populations. Population estimates through 1939 from Robert C. Schmitt, Historical Statistics of Hawaii, p. 10; 1940 and later years from DPED, Statistical Report 172, and present report, table 2. Rates not adjusted for age.

Source: Hawaii State Department of Health, "Mortality Trends in Hawaii, 1908-1962," R & S Report, No. 2 (April 1973), and Statistical Report for 1970 (pp. 33-34), 1980 (pp. 23-25), and 1987 (forthcoming).

Table 65.-- CATASTROPHIC MORTALITY: 1978 TO 1988

[Includes all accidents, natural disasters, and other events causing five or more deaths. Excludes out-of-state deaths to Hawaii residents. Complete through July 10, 1988]

Date		Place	Kind of disaster	Deaths
1978:	Dec. 9 (?)	At sea off West Hawaii .	Ship disappearance ...	10
1979:	Feb. 11 (?) ...	At sea out of Hana	Boat disappearance ...	5
	Nov. 24	Near Wahiawa, Oahu	2-car auto crash	5
1980:	May 18	Molokai	Helicopter crash	7
1981:	Dec. 5	Pearl Harbor	Airplane crash	11
1982:	July 24	Near Wahiawa, Oahu	3-car auto crash	5
1983:	June 16	Honopu, Kauai	Airplane crash	14
1985:	Jan. 15	540 mi. N. of Honolulu .	Helicopter crash	7
1987:	Dec. 23	At sea W. of Molokai ...	Airplane disappearance	8
1988:	June 9	Near Waimanalo, Oahu ...	2-car auto crash	5
	July 9	Near Kawaihae, Hawaii ..	2-car auto crash	6

Source: DBED file of newspaper accounts.

Table 66.-- DEATHS OCCURRING IN HAWAII, BY METHOD OF DISPOSITION: 1982 TO 1987

Method	1982	1983	1984	1985	1986	1987
All methods	5,495	5,725	5,942	6,116	6,171	6,490
Burial	2,324	2,513	2,517	2,610	2,512	2,690
Cremation	2,515	2,588	2,808	2,886	3,002	3,185
Removal	613	594	587	586	614	565
Entombment	33	25	26	27	41	39
Educational purpose	-	-	-	-	-	-
Other	-	3	-	-	-	-
Unknown	10	2	4	7	2	11

Source: Hawaii State Department of Health, Statistical Report for 1981-1986, and records.

Table 67.-- PERCENT OF ADULT POPULATION AFFECTED BY SPECIFIED HEALTH RISK FACTORS, BY SEX AND ISLANDS: 1987

[Excludes inmates of institutions, armed forces living on military bases, and all persons less than 18 years old]

Health risk factor	State	Island		Sex	
		Oahu	Others	Male	Female
Seatbelt nonuse	7.3	5.9	12.2	9.1	5.6
Current hypertension	15.7	15.7	15.7	15.2	16.1
Sedentary lifestyle	51.7	51.6	52.0	45.3	57.9
Obesity	18.1	17.5	20.3	21.3	15.0
Smoking	22.3	21.4	25.5	23.6	21.1
Acute drinking	22.6	21.2	27.7	35.3	10.2
Heavier drinking	8.9	7.4	13.9	15.2	2.7
Drinking and driving	3.7	3.0	6.2	5.5	1.9

Source: Hawaii State Department of Health, Health Promotion and Education Office, HPEO Report - 1987 Statistical Annual Report, tables 2 and 3.

Table 68.-- PERSONS ON THE STATE BLIND REGISTER, BY COUNTIES: 1986 AND 1987

Date	State total	City and Co. of Honolulu	County of Hawaii	County of Kauai	County of Maui
1986: June 30	2,000	1,631	147	66	156
1987: June 30	2,008	1,643	147	66	152

Source: Hawaii State Department of Social Services and Housing, Services for the Blind Branch, records.

Table 69.-- CHRONIC CONDITIONS: 1986

Selected chronic conditions	Prevalence of condition	Conditions per 1,000 persons
Heart condition	20,065	19.6
Impairment of back or spine	52,127	50.9
Hypertension without heart involvement	78,942	77.1
Arthritis/rheumatism	31,597	30.8
Hearing impairment	34,866	34.0
Asthma with or without hayfever	35,311	34.5
Diabetes	18,618	18.2
Mental and nervous condition	11,669	11.4
Visual impairment	11,194	10.9
Malignant neoplasms	6,577	6.4
Chronic and allergic skin conditions ..	44,704	43.6
Chronic sinusitis	26,363	25.7
Hayfever without asthma	58,149	56.8
Stomach ulcer	5,978	5.8
Bronchitis/emphysema	15,738	12.8
Benign and unspecified neoplasms	4,219	4.1
Hemorrhoids	11,348	11.1
Thyroid/goiter	7,995	7.8
Varicose veins	7,097	6.9
Gout	13,583	13.3

Source: Hawaii State Department of Health, Hawaii Health Surveillance Program, special tabulation.

Table 70.-- LIMITATION OF ACTIVITY DUE TO CHRONIC OR ACUTE CONDITIONS: 1986

Type of limitation	Number
Persons with one or more chronic conditions	378,440
No limitation of activity	313,730
Limited, but not in major activity	26,073
Limited in amount or kind of activity	18,797
Unable to carry on major activity	10,893
Restricted days in past 12 months 1/	12,697,600
Per person 2/	12.4

1/ A restricted activity day is one in which a person had to cut down on his usual activity for all or most of the day.

2/ Base includes persons without chronic or acute conditions or restricted activities.

Source: Hawaii State Department of Health, Hawaii Health Surveillance Survey Program, special tabulations.

Table 71.-- ACUTE CONDITIONS: 1986

Condition	Incidence of condition per year	Conditions per 100 persons per year
All acute conditions	2,151,954	210.2
Infective parasitic diseases	142,326	13.9
Respiratory condition	1,510,339	147.5
Digestive system condition	47,658	4.6
Injuries	189,045	18.5
All other acute conditions	262,586	25.6

Source: Hawaii State Department of Health, Hawaii Health Surveillance Program, special tabulation.

Table 72.-- SPECIFIED COMMUNICABLE DISEASES: 1985 TO 1987

Disease	Cases			Deaths		
	1985	1986	1987	1985	1986	1987
All reportable diseases ..	11,358	9,762	8,153	42	39	71
AIDS 1/	32	58	79	26	27	41
Chickenpox	1,494	1,386	1,484	-	-	-
Gonorrhea	2,162	1,619	1,159	-	-	-
Hansen's Disease 2/	31	37	25	-	-	-
Hepatitis, all types	260	101	110	7	2	13
Influenza	1,009	316	332	-	3	5
Leptospirosis 3/	13	15	24	1	-	-
Malaria 4/	17	1	3	-	-	1
Measles (Rubeola)	31	37	5	-	-	-
Meningitis, all types	167	222	137	-	-	-
Mumps	19	24	12	-	-	-
Rubella	44	8	32	-	-	-
Salmonellosis	337	428	475	-	1	-
Scarlet fever, other strep. ...	5,036	4,892	3,620	-	-	-
Syphilis	123	56	64	-	-	-
Tuberculosis	189	180	195	8	6	11
All others	394	382	397	-	-	-

1/ In 1983, there were 8 AIDS cases and 3 deaths; in 1984, 13 cases and 8 deaths.

2/ Excludes reinstated cases.

3/ Includes previously unreported cases.

4/ Acquired outside the State.

Source: Hawaii State Department of Health, Statistical Report, 1987.

Table 73.-- ALCOHOL AND DRUG USE, BY AGE AND SEX: 1984

[Based on a sample of persons 18 and over on the four largest islands.]

Substance, sex, and age	Sample size	Use (percent of group)				
		None 1/	Light	Moder-ate	Moderately heavy	Heavy
ALCOHOL 2/						
Total	2,503	47.3	24.4	12.9	7.3	8.1
Male	1,078	32.3	21.8	17.5	11.5	13.9
Female	1,412	56.4	26.4	9.4	4.1	3.7
18 to 24 years	426	42.7	25.6	15.3	7.5	8.9
25 to 34 years	426	37.5	29.2	15.6	7.5	8.9
35 to 44 years	479	44.5	28.6	13.8	6.1	7.1
45 to 54 years	326	51.5	24.2	9.2	6.8	8.3
55 to 64 years	367	55.3	19.1	10.9	7.1	7.6
65 to 74 years	226	61.5	13.7	11.5	7.5	5.8
75 years and over .	82	67.1	14.6	3.7	6.1	8.5
DRUGS 3/						
Total	2,503	57.0	6.5	30.8	2.6	3.1
Male	1,073	55.7	8.1	29.9	2.7	3.5
Female	1,411	57.8	5.2	31.7	2.5	2.8
18 to 24 years	424	41.7	12.5	38.0	3.5	4.3
25 to 34 years	594	44.4	10.9	35.0	5.1	4.6
35 to 44 years	479	57.0	6.3	32.6	1.5	2.7
45 to 54 years	326	66.3	2.2	28.2	0.9	2.5
55 to 64 years	367	73.0	1.6	21.0	1.9	2.5
65 to 74 years	225	76.4	0	21.3	1.3	0.9
75 years and over .	82	63.4	0	34.2	1.2	1.2

1/ For alcohol use, includes both non-drinkers and infrequent drinkers.

2/ Based on total ethanol consumption.

3/ Based on frequency of use, weighted by degree of danger to users, for marijuana/hashish, tranquilizers, barbituates, inhalants, LSD, PCP, cocaine, amphetamines, heroin, and morphine/codeine/percodan/demoral.

Source: Jonathan S. Raymond, Sharon Murakami, and Frank Ahern, Toward an Epidemiology of Mental Health and Alcohol and Drug Use in Hawaii (September 1985), tables 7 and 11.

Table 74.-- NUMBER AND BED CAPACITY OF HOSPITALS AND CARE HOMES, BY TYPE OF FACILITY: 1980 TO 1988

[Includes Tripler Army Medical Center]

Category and year	Hospitals				Care homes	
	Total 1/	Acute care	Long-term care	Specialty care	Residential 2/	Family 3/
Number of facilities:						
1980	49	25	33	8	15	281
1981	49	25	34	9	14	278
1982	49	25	34	9	15	280
1983	45	23	34	9	16	282
1984	48	24	32	10	16	272
1985	47	23	32	10	16	299
1986	48	23	33	9	17	633
1987	51	23	36	9	17	633
1988	51	22	36	9	16	531
Number of beds:						
1980	6,416	2,886	2,656	874	490	1,042
1981	6,488	2,925	2,670	893	500	1,055
1982	6,424	2,875	2,668	881	516	1,098
1983	6,379	2,848	2,640	891	549	1,096
1984	6,512	2,896	2,648	967	549	1,082
1985	6,504	2,894	2,650	960	559	1,258
1986	6,595	2,870	2,769	956	540	2,547
1987	6,820	2,887	2,977	956	540	2,547
1988	6,671	2,855	2,995	821	490	2,235

NA Not available.

1/ Institutions providing more than one kind of care are only counted once.

2/ Five or more beds. Since 1987, category changed to Type II care homes consisting of more than five beds.

3/ Four or fewer beds. Since 1987, Type I care homes consisting of five beds or less.

Source: Hawaii State Department of Health, Statistical Report (annual); State Health Planning and Development Agency, records; Hospital and Medical Facilities Branch, records.

Table 75.-- OCCUPANCY CHARACTERISTICS OF ACUTE AND LONG-TERM CARE CIVILIAN HOSPITALS: 1980 TO 1987

[Excludes Tripler Army Medical Center]

Type of facility and year	Beds 1/	Admissions	Average daily census	Average length of stay (days)	Average daily percent occupancy
Acute care:					
1980	2,359	117,404	2,047	6.4	70.9
1981	2,366	99,247	1,675	6.2	71.0
1982	2,366	102,374	1,728	6.2	73.0
1983	2,387	102,331	1,654	5.9	69.3
1984	2,385	96,530	1,558	5.9	65.3
1985	2,361	84,473	1,566	6.8	66.3
1986 2/	2,378	91,704	1,586	6.3	66.7
1987	2,346	93,256	1,661	6.5	70.8
Long-term care:					
1980	2,670	2,653	2,391	328.9	90.0
1981	2,668	2,478	2,487	366.4	93.2
1982	2,640	2,498	2,523	368.7	95.6
1983	2,648	2,574	2,519	357.3	95.2
1984	2,650	2,606	2,552	357	96.3
1985	2,769	2,575	2,590	367	93.5
1986 2/	2,977	2,901	2,602	327	87.4
1987	2,995	2,553	2,779	397	92.8

NA Not available.

1/ Civilian bed count of succeeding year.

2/ Excludes statistics for Lanai.

Source: Hawaii State Department of Health, Statistical Report (annual); State Health Planning and Development Agency, records.

Table 76.-- NUMBER AND BED CAPACITY OF HOSPITALS, BY TYPE OF FACILITY, BY ISLANDS: 1988

[Except for Tripler Army Medical Center, data are for facilities recognized by the Hawaii State Health Planning and Development Agency]

Category and island	Hospitals				Care homes	
	Total 1/	Acute care 2/	Long-term care	Specialty care	Type II 3/	Type I 4/
NUMBER OF FACILITIES						
State total ..	51	22	36	9	16	531
Oahu	33	10	21	7	11	422
Hawaii	6	4	6	-	1	53
Kauai	5	3	5	-	3	29
Maui	4	3	2	1	-	18
Molokai	2	1	1	1	1	9
Lanai	1	1	1	-	-	-
NUMBER OF BEDS						
State total ..	6,671	2,855	2,995	821	490	2,235
Oahu	5,120	2,336	1,985	799	406	1,817
Hawaii	667	240	427	-	13	207
Kauai	328	114	214	-	57	102
Maui	498	151	339	8	-	75
Molokai	44	8	22	14	14	34
Lanai	14	6	8	-	-	-

1/ Institutions providing more than one kind of care are counted only once.

2/ Includes Tripler Army Medical Center which had a bed capacity of 509 (plus 52 nursery beds).

3/ More than five beds.

4/ Five beds or less.

Source: Hawaii State Department of Health, Annual Summary of Acute, Long Term Care and Specialty Hospital Utilization, 1987; State Health Planning and Development Agency.

Table 77.-- OCCUPANCY CHARACTERISTICS OF ACUTE AND LONG-TERM CARE CIVILIAN HOSPITALS, BY ISLANDS: 1987

[Excludes Tripler Army Medical Center]

Type of facility and island	Admissions	Average daily census	Average length of stay (days)	Average daily percent occupancy
ACUTE CARE				
State total	93,256	1,661	6.5	70.8
Oahu	70,536	1,344	7.0	74.4
Hawaii	10,885	146	4.9	60.7
Kauai	5,158	60	4.3	51.5
Maui	6,260	108	4.8	70.1
Molokai	276	2	3.3	15.8
Lanai	141	1	2.8	12.9
LONG-TERM CARE				
State total	2,553	2,779	397.3	92.8
Oahu	1,528	1,863	444	93.7
Hawaii	401	394	359	96.7
Kauai	312	178	201	92.1
Maui	283	323	417	95.7
Molokai	23	13	200	90.1
Lanai	6	8	496	100.0

NA Not available.

Source: Data by islands from Hawaii State Department of Health, State Health Planning and Development Agency, Annual Summary of Acute, Long Term Care and Specialty Hospital Utilization By County, 1987.

Table 78.-- COMMUNITY HOSPITAL AVERAGE COSTS AND ROOM CHARGES: 1981 TO 1987

Year	Average length of stay (days)	Average cost to hospital		Hospital semiprivate room charges 1/ (dollars)
		Per in-patient day (dollars)	Per admission (dollars)	
1981	7.9	276.80	2,187	169.19
1982	8.3	307.30	2,551	192.74
1983	8.2	357.87	2,964	215.84
1984	8.3	383.05	3,186	227.53
1985	8.3	420.11	3,522	230.82
1986	7.5	489.93	3,707	266.24
1987	(NA)	(NA)	(NA)	279.90

NA Not available.

1/ July data, except 1985, which refers to January.

Source: Health Insurance Association of America, Source Book of Health Insurance Data (biennial) and Update (biennial).

Table 79.-- PATIENTS SERVED BY STATE MENTAL HEALTH FACILITIES: 1982 TO 1987

Year	Patients active, end of period			Admissions		Termina-tions	Patients served (undup.)
	Total	In-patients	Out-patients	Total	Unduplicated		
1982	6,287	336	5,951	4,885	4,163	5,155	10,312
1983	6,022	303	5,719	4,761	4,112	5,030	9,970
1984 1/ ...	5,692	337	5,355	4,307	3,845	4,887	9,724
1985	6,328	251	6,077	3,933	3,268	4,221	8,891
1986	5,852	252	5,600	3,826	3,292	3,725	8,342
1987	5,754	248	5,506	3,678	3,122	3,452	8,220

1/ Year ended June 30.

Source: Hawaii State Department of Health, Statistical Report (annual) and records.

Table 80.-- HAWAII STATE HOSPITAL BEDS AND OCCUPANCY: 1984 TO 1988

Year	Number of beds, June 30	Admissions 1/		Patients in hospital 2/	
		Total	First	Average 1/	June 30
1984	220	744	276	221	240
1985	220	647	514	220	224
1986 3/ .	240	738	611	263	272
1987 3/ .	240	776	614	254	223
1988 3/ .	240	811	651	241	210

1/ Year ended June 30.
2/ Includes patients on leave and absent without leave.
3/ Includes children's unit at Leahi Hospital assigned to the Hawaii State Hospital effective July 1, 1985.

Source: Hawaii State Hospital, records.

Table 81.-- WAIMANO TRAINING SCHOOL AND HOSPITAL: 1984 TO 1988

[Waimano Training School and Hospital is the State institution for the mentally retarded]

Year	Beds, June 30	Admissions 1/	Patients in residence		Patients on leave, June 30
			Average 2/	June 30	
1984	410	2	356	364	603
1985	410	2	354	360	586
1986	410	-	331	333	593
1987	285	-	266	260	575
1988	285	2	225	199	3/ 3

1/ Year ended June 30. Excluding returns from community placement.
2/ Year ended June 30.
3/ Reflects effect of deinstitutionalization of the facility; placement into community-based ICF/MR.

Source: Hawaii State Department of Health, Statistical Report (annual); Waimano Training School and Hospital, records; and community services for the Developmentally Disabled Branch, records.

Table 82.-- HANSEN'S DISEASE PATIENTS REGISTERED: 1983 TO 1987

Subject	1983	1984	1985	1986	1987
Patients on register, Dec. 31 ..	578	661	651	653	633
Medically released	578	661	651	653	633
At home	462	555	546	549	532
Kalaupapa	110	101	100	99	97
Hale Mohalu or Leahi	6	5	5	5	4
Hospital care days (1,000)	39.3	36.6	35.2	34.5	33.4
New cases	41	43	31	37	24

Source: Hawaii State Department of Health, Statistical Report, 1987.

Table 83.-- PHYSICIANS, DENTISTS, NURSES, AND PHARMACISTS LICENSED IN HAWAII, BY PLACE OF ADDRESS: FEBRUARY 11, 1988

Place of address	Physicians and surgeons 1/	Dentists	Registered nurses	Pharmacists
Total licensed	3,947	1,168	8,889	872
Hawaii addresses ...	2,277	881	7,070	520
Hawaii	185	79	583	47
Maui	162	55	524	38
Lanai	1	1	7	1
Molokai	7	4	29	2
Oahu	1,823	711	5,651	409
Kauai	99	31	276	23
Niihau	-	-	-	-
Out of State	1,670	287	1,819	352

1/ Permanent licenses only. Does not include interns, residents, or physicians who provided State government services only.

Source: Hawaii State Department of Commerce and Consumer Affairs, Professional and Vocational Licensing Division, Licensing Branch, records.

Table 84.-- MARRIAGES AND DIVORCES: 1970 TO 1987

[Place of occurrence basis]

Calendar year	Marriages		Divorces and annulments 2/	Rates per 1,000 resident population		Percent of marriages	
	Total	Resident 1/		Resident marriages	Divorces, annulments 2/	Nonresident 3/	Interracial 4/
1970 ...	10,599	7,889	2,589	10.2	3.4	25.6	40.7
1971 ...	9,734	8,104	3,691	10.1	4.6	16.7	42.7
1972 ...	9,750	8,482	3,891	10.2	4.7	13.0	41.7
1973 ...	9,776	8,656	4,170	10.2	4.9	11.5	43.7
1974 ...	9,649	8,500	4,111	9.8	4.7	11.9	43.2
1975 ...	9,673	8,440	4,265	9.5	4.8	12.7	43.1
1976 ...	9,769	8,318	4,712	9.2	5.2	14.9	43.2
1977 ...	10,266	8,427	4,601	9.2	5.0	17.9	43.3
1978 ...	10,736	8,650	4,837	9.3	5.2	19.4	44.5
1979 ...	11,678	9,424	5,055	9.9	5.3	19.3	44.6
1980 ...	11,856	9,442	4,438	9.7	4.6	20.4	44.4
1981 ...	12,218	9,445	4,253	9.6	4.3	22.7	44.5
1982 ...	13,483	10,053	4,233	10.1	4.2	25.4	45.0
1983 ...	14,062	10,216	4,583	10.0	4.5	27.3	45.5
1984 ...	14,982	10,020	4,769	9.7	4.6	33.3	46.3
1985 ...	15,421	9,893	4,887	9.4	4.6	35.8	46.9
1986 ...	16,219	9,571	4,674	9.0	4.4	30.4	46.5
1987 ...	16,567	9,714	4,419	9.0	4.1	41.3	44.6

1/ One or both partners residents of Hawaii.

2/ Final decrees only. An interlocutory decree of six months was abolished July 1, 1971.

3/ Both partners nonresidents of Hawaii.

4/ Excludes nonresident marriages.

Source: Hawaii State Department of Health, Statistical Report (annual), and records.

Table 85.-- CHARACTERISTICS OF MARRIAGES AND DIVORCES: 1984 TO 1987

[Place of occurrence basis]

Subject	1984	1985	1986	1987
MARRIAGES				
Number	14,982	15,421	16,219	16,567
Percent on Oahu	66.8	64.5	62.0	61.4
Percent Hawaii residents:				
Both bride and groom	61.7	59.4	54.6	54.5
One partner only	5.2	4.7	4.4	4.2
Neither bride nor groom	33.1	35.8	41.0	41.3
Median age (years):				
Groom	29.7	29.9	30.6	30.7
Bride	27.5	27.8	28.1	28.4
Percent previously married:				
Groom	38.3	39.3	40.4	39.6
Bride	38.8	39.1	39.6	39.0
DIVORCES AND ANNULMENTS				
Number	4,769	4,887	4,674	4,419
Divorces	4,758	4,875	4,652	4,404
Annulments	11	12	19	15
Not reported	-	-	3	-
Percent occurring on Oahu	79.2	77.2	76.2	75.3
Residence:				
Both residents of Hawaii	74.2	75.3	74.4	75.0
Only husband nonresident	13.0	12.3	12.9	13.2
Only wife nonresident	12.8	12.4	12.5	11.5
Both nonresidents	-	-	0.1	0.2
Median age (years):				
Husband	33.9	34.3	34.3	35.2
Wife	31.3	32.0	32.1	32.7
Percent interracial 1/	41.1	39.0	38.2	38.9
Percent with children under 18 years	54.0	55.6	53.2	51.8
Median years married	6.1	6.3	6.4	6.4

1/ For these calculations, marriages where both bride and groom are in the "Part Hawaiian" or "Other races" categories are classified as non-interracial.

Source: Hawaii State Department of Health, Statistical Report (annual), and records.

Table 86.-- MARRIAGES OCCURRING IN HAWAII, RESIDENT AND NONRESIDENT, BY RACE MIXTURE AND TYPE OF CEREMONY: 1987

Race mixture and type of ceremony	Total	At least one partner Hawaii resident	Both partners nonresidents
All marriages	16,567	9,714	6,853
Both partners same race	11,616	5,388	6,228
Different	4,951	4,326	625
Percent different	29.9	44.5	9.1
Civil ceremony	4,831	3,840	991
Religious ceremony	11,735	5,873	5,862
Unknown	1	1	-

Source: Hawaii State Department of Health, Research and Statistics Office, special tabulations.

Table 87.-- DIVORCE AND WIDOWHOOD: 1950 TO 1986

Subject	1950	1960	1970	1980	1986
Married couples	90,844	120,192	154,678	185,698	234,310
Terminated marriages	(NA)	2,713	4,466	6,782	7,397
Divorces	1,173	1,270	2,589	4,438	4,674
Deaths 1/	(NA)	1,443	1,877	2,344	2,723
Husbands	(NA)	947	1,312	1,678	1,941
Wives	(NA)	496	565	666	782
Percent terminated	(NA)	2.3	2.9	3.7	3.2
By divorce	1.3	1.1	1.7	2.4	2.0
By death 1/	(NA)	1.2	1.2	1.3	1.2
Husbands	(NA)	0.8	0.8	0.9	0.8
Wives	(NA)	0.4	0.4	0.4	0.3

NA Not available.

1/ Excludes armed forces, 1950-1970.

Source: Hawaii State Department of Health, Statistical Report (annual) and records; U.S. Bureau of the Census, decennial census, 1960-1980; Data Book 1987, table 40.

Table 88.-- PERSONAL HEALTH CARE EXPENDITURES: 1966 AND 1982

Type of expenditure	Total (million dollars)		Per capita (dollars)	
	1966	1982	1966	1982
All expenditures	147.9	1,224.4	208	1,228
Hospital care	56.4	477.6	79	479
Physicians' services	33.3	374.5	47	376
Dentists' services	14.2	133.0	20	133
Other professional services ..	3.1	20.8	4	21
Drugs and medical sundries ...	19.2	92.9	27	93
Eyeglasses and appliances	4.1	22.6	6	23
Nursing home care	4.2	62.8	6	63
Other health services	13.6	40.1	19	40

Source: U.S. Department of Health and Human Services, Health Care Financing Administration, Health Care Financing Review, Summer 1985, pp. 19, 21, 37, and 45.

Table 89.-- HEIGHT AND WEIGHT OF PERSONS 18 YEARS OLD AND OVER, BY SEX: 1975-1980

[Based on a sample of approximately 48,000 Hawaii residents 18 years old and over. Height and weight values are those reported by respondents; inclusion or exclusion of clothing or shoes not specified. Fractional values of 1/2 and over have been rounded upward. For further information, see Data Book 1984, tables 104-107]

Centile	Height (inches)		Weight (pounds)	
	Men	Women	Men	Women
10th	63.1	59.3	126.4	100.8
50th (median)	67.4	62.4	158.3	123.8
90th	72.1	66.5	199.5	166.9
Average	67.5	62.6	159.5	127.9

Source: Hawaii State Department of Health, Hawaii Health Surveillance Program, special tabulations.

EDUCATION

This section presents statistics on enrollment in public and private schools, colleges and universities; students graduated and degrees awarded; the highest grade of school completed; achievement test results; school facilities, personnel, and expenditures; and libraries.

Enrollment in elementary, intermediate and high schools in 1987-1988 totaled 202,000, slightly more than in the preceding year but well below the all-time high of 216,000 reached in 1971-1972. There were 231 public schools with 8,632 classroom teachers and 166,000 students (82.1 percent of the total). There were also 138 private schools with 2,536 teachers and over 36,000 pupils. Students graduating from public and private high schools in 1986-1987 numbered 13,097. Some 52,600 students attended colleges and universities in the State in 1987-1988, including 18,400 on the Manoa Campus of the University of Hawaii, 500 at West Oahu College, 3,600 at UH-Hilo, 20,600 at six community colleges, and 9,600 in four private colleges and universities. Ninety-two percent of the children 5 and 6 years old were in school in 1980 (compared with 87 percent in 1970), and 47 percent in the 18- and 19-year-old group were enrolled (compared with 53 percent a decade earlier). The expenditure per pupil in public schools rose from $1,718 in 1976-1977 to $3,748 in 1986-1987. In scholastic aptitude tests, Hawaii students scored somewhat above national norms in the math component but considerably below in the verbal component. Among adults, an estimated 15 percent were illiterate in English as of 1980. More than one-fifth of all residents 25 years of age or more have completed four or more years of college. The Hawaii State Library System, with 49 locations on six islands, had 2.1 million books, 6,500 periodical subscriptions, and 68,000 phonodisks and phonotapes in 1987, with an annual circulation of 6.5 million. The University of Hawaii libraries in the same year counted 2.6 million volumes.

The principal sources of data on education are the U.S. Bureau of the Census, Hawaii State Department of Education, University of Hawaii, and private colleges and universities. Historical Statistics of Hawaii, Section 9, contains Island data back to 1820. Section 4 of the Statistical Abstract of the United States: 1988 presents comparable information for the nation as a whole.

Table 90.-- SCHOOL ENROLLMENT BY AGE: 1970 AND 1980

Age	Number enrolled in school		Percent enrolled in school	
	1970	1980	1970	1980
Persons 3 years old and over enrolled in school .	238,925	266,181	...	...
3 and 4 years old	7,097	11,436	24.5	39.0
5 and 6 years old	27,683	26,070	87.4	92.0
7 to 13 years old	108,757	102,604	96.7	98.9
14 and 15 years old	30,409	31,741	95.8	98.6
16 and 17 years old	26,362	31,711	90.8	93.4
18 and 19 years old	14,486	16,869	53.1	46.9
20 and 21 years old	7,672	11,164	22.4	25.6
22 to 24 years old	6,357	10,907	13.6	17.5
25 to 34 years old	6,942	15,254	6.4	8.5
35 years old and over	3,160	8,425	...	...

Source: U.S. Bureau of the Census, 1970 Census of Population, General Social and Economic Characteristics, Hawaii, PC(1)-C13 (December 1971), table 51; 1980 Census of Population, General Social and Economic Characteristics, Hawaii, PC80-1-C-13 (June 1983), table 66.

Table 91.-- PERCENT ENROLLED IN SCHOOL, FOR SELECTED AGE GROUPS, BY COUNTIES: 1980

County	5 and 6 years	7 to 13 years	14 and 15 years	16 and 17 years	18 and 19 years	20 and 21 years
State total	92.0	98.9	98.6	93.4	46.9	25.6
Hawaii	90.3	99.1	98.0	94.2	51.3	27.8
Honolulu	92.2	98.9	98.6	93.6	46.7	26.5
Kauai	94.9	98.9	100.0	95.0	52.0	18.1
Maui	90.9	98.9	98.4	90.3	40.7	11.5

Source: U.S. Bureau of the Census, 1980 Census of Population, General Social and Economic Characteristics, Hawaii, PC80-1-C-13 (June 1983), tables 66 and 175.

Table 92.-- YEARS OF SCHOOL COMPLETED BY PERSONS 25 YEARS OLD AND OVER: 1950 TO 1980

Years completed	1950	1960	1970	1980
Percent high school graduates	31.6	46.1	61.9	73.8
Percent 4 years or more of college	6.1	9.0	14.0	20.3

Source: Robert C. Schmitt, Historical Statistics of Hawaii (1977), p. 227; U.S. Bureau of the Census, 1980 Census of Population, General Social and Economic Characteristics, Hawaii, PC80-1-C-13 (June 1983), table 61.

Table 93.-- YEARS OF SCHOOL COMPLETED BY PERSONS 25 YEARS OLD AND OVER: ANNUAL AVERAGES, 1983-85 AND 1986-88

[Based on pooled samples of 1,730 households (5,288 persons of all ages) for 1983-1985 and 1,512 households (4,540 persons) for 1986-1988]

Years of school completed	1983-1985	1986-1988
Persons 25 years and over	592,963	668,007
None	7,030	7,666
Elementary	68,995	71,447
High school, 1 to 3 years	59,085	58,346
High school, 4 years	220,321	248,283
College, 1 to 3 years	109,846	138,974
College, 4 years	79,102	84,396
College, 5 or more years	48,584	58,896
Median (years)	12.8	12.8

Source: U.S. Bureau of the Census for the U.S. Bureau of Labor Statistics, Current Population Survey (March), annual, 1983 to 1988; machine-readable data file, special tabulation by Hawaii State Data Center.

Table 94.-- YEARS OF SCHOOL COMPLETED BY PERSONS 25 YEARS OLD AND OVER, BY COUNTIES AND ISLANDS: 1980

County or island	Percent high school grads	Percent 4 years or more college	County or island	Percent high school grads	Percent 4 years or more college
State	73.8	20.3	Islands:		
Counties:			Hawaii	68.9	15.2
Hawaii	68.9	15.2	Maui	69.1	15.9
Maui	67.7	15.3	Lanai	38.2	9.4
Kalawao	28.2	3.5	Molokai	60.5	10.1
Honolulu	75.6	21.7	Oahu	75.6	21.7
Kauai	64.1	15.7	Kauai	64.4	15.8
			Niihau	0	0

Source: U.S. Bureau of the Census, 1980 Census of Population and Housing, PHC80-2-13 (June 1983), and PHC80-2-183 (June 1983).

Table 95.-- ILLITERACY AND YEARS OF SCHOOL COMPLETED: 1970-1980

[For qualifications and earlier years, see Data Book 1986, table 119]

Subject	Age group	Number	Percent
Illiterate:			
In any language, 1970	14 and over	10,500	1.9
In English, 1980	20 and over	98,000	15
Years of school completed, 1980:			
Less than 1 year	15 and over	11,218	1.5
Less than 5 years	15 and over	29,929	4.0

Source: Statistical Abstract of the United States: 1975, p. 120; U.S. Department of Education, Office of the Deputy Undersecretary for Planning, Budget and Evaluation, Adult Illiteracy Estimates for States (revised April 14, 1986); U.S. Bureau of the Census, 1980 Census of Population, PC80-1-D13 (October 1983), table 203.

Table 96.-- SCHOOLS, TEACHERS, ENROLLMENT, AND HIGH SCHOOL GRADUATES, FOR PUBLIC AND PRIVATE SCHOOL SYSTEMS: 1977-1978 TO 1987-1988

School year	Schools 1/			Teachers 1/		
	Total	Public	Private	Total	Public 2/	Private 3/
1977-78 ...	356	228	128	9,972	7,891	2,081
1978-79 ...	365	229	136	9,815	7,930	1,885
1979-80 ...	369	229	140	10,125	8,066	2,059
1980-81 ...	371	230	141	10,324	8,113	2,211
1981-82 ...	376	230	146	10,447	8,139	2,308
1982-83 ...	373	233	140	10,302	8,083	2,219
1983-84 ...	374	233	141	10,344	7,997	2,347
1984-85 ...	372	231	141	10,453	8,060	2,393
1985-86 ...	373	232	141	10,677	8,221	2,456
1986-87 ...	377	232	145	10,788	8,244	2,544
1987-88 ...	369	231	138	11,168	8,632	2,536

School year	Enrollment or membership 1/			High school graduates		
	Total	Public 4/	Private 5/	Total	Public	Private
1977-78 ...	208,830	172,649	36,181	13,867	11,464	2,403
1978-79 ...	206,812	170,515	36,297	14,097	11,637	2,460
1979-80 ...	205,580	168,393	37,187	14,013	11,493	2,520
1980-81 ...	202,972	165,094	37,878	14,647	12,088	2,559
1981-82 ...	200,844	162,805	38,039	13,948	11,563	2,385
1982-83 ...	200,129	162,024	38,105	13,248	10,757	2,491
1983-84 ...	200,240	162,241	37,999	12,992	10,454	2,538
1984-85 ...	200,869	163,860	37,009	12,516	10,092	2,424
1985-86 ...	200,952	164,169	36,783	12,468	9,958	2,510
1986-87 ...	201,188	164,640	36,548	13,097	10,491	2,606
1987-88 ...	202,419	166,240	36,179	(NA)	(NA)	(NA)

NA Not available.

1/ September data for all years.

2/ Special schools excluded through 1978-1979 but included beginning 1979-1980.

3/ Includes special schools for all years.

4/ Includes special schools; excludes pre-kindergarten prior to 1980-1981.

5/ Includes special schools and pre-kindergarten for all years.

Source: Hawaii State Department of Education, records.

Table 97.-- SCHOOLS, TEACHERS, AND ENROLLMENT, SEPTEMBER 11, 1987, AND HIGH SCHOOL GRADUATES, 1986-1987, FOR PUBLIC AND PRIVATE SCHOOL SYSTEMS, BY ISLANDS

Island	Number of schools, September 11, 1987			Number of teachers, September 11, 1987		
	Total	Public	Private	Total	Public	Private
State total	369	231	138	11,168	8,632	2,536
Hawaii	46	31	15	1,326	1,161	165
Maui	33	20	13	832	701	131
Lanai	1	1	-	31	31	-
Molokai	7	5	2	100	93	7
Oahu	262	161	101	8,355	6,176	2,179
Kauai	19	12	7	522	468	54
Niihau	1	1	-	2	2	-

Island	Enrollment, September 11, 1987			High school graduates, 1986-1987 school year		
	Total	Public	Private	Total	Public	Private
State total	202,419	166,240	36,179	13,097	10,491	2,606
Hawaii	24,509	22,216	2,293	1,485	1,335	150
Maui	16,044	14,070	1,974	933	807	126
Lanai	448	448	-	35	35	-
Molokai	1,676	1,640	36	101	99	2
Oahu	149,922	118,828	31,094	9,941	7,616	2,325
Kauai	9,795	9,013	782	602	599	3
Niihau	25	25	-	-	-	-

Source: Hawaii State Department of Education, records.

Table 98.-- PUBLIC AND PRIVATE SCHOOL ENROLLMENT, BY GRADES: 1982 TO 1987

[September data]

Grade	1982	1983	1984	1985
All grades	200,129	200,240	200,869	200,952
Nursery	3,543	3,354	2,767	2,774
Kindergarten	15,400	15,390	15,980	16,362
1	15,011	15,567	15,731	16,020
2	14,148	14,726	15,305	15,135
3	13,896	13,917	14,553	14,826
4	13,695	13,790	13,783	14,203
5	13,738	13,493	13,598	13,372
6	14,365	13,463	13,437	13,328
7	15,020	14,525	13,693	13,488
8	14,462	14,950	14,551	13,530
9	14,758	15,265	15,945	15,496
10	14,746	14,487	15,049	15,635
11	14,168	13,844	13,731	14,305
12	12,942	12,899	12,465	12,420
Specials 1/	10,237	10,570	10,281	10,058

Grade	1986	1987		
		Total	Public	Private
All grades	201,188	202,419	166,240	36,179
Nursery	2,796	2,734	330	2,404
Kindergarten	16,557	16,915	13,888	3,027
1	16,538	16,718	13,975	2,743
2	15,672	16,111	13,562	2,549
3	14,778	15,286	12,875	2,411
4	14,434	14,436	12,162	2,274
5	13,980	14,231	12,057	2,174
6	13,156	13,692	11,526	2,166
7	13,313	13,402	10,707	2,695
8	13,287	13,497	10,865	2,632
9	14,647	14,476	11,791	2,685
10	14,967	14,103	11,454	2,649
11	14,637	14,260	11,621	2,639
12	12,936	13,239	10,476	2,763
Specials 1/	9,490	9,319	8,951	368

1/ Public school data include ungraded students in special schools.

Source: Hawaii State Department of Education, records.

Table 99.-- ENROLLMENT (PUBLIC AND PRIVATE SCHOOLS COMBINED), BY GRADES, BY COUNTIES: SEPTEMBER 11, 1987

Grade	State total	Hawaii	Maui	Honolulu	Kauai
All grades	202,419	24,509	18,168	149,922	9,820
Nursery	2,734	295	235	2,107	97
Kindergarten	16,915	2,007	1,540	12,503	865
1	16,718	2,010	1,597	12,292	819
2	16,111	2,058	1,427	11,832	794
3	15,286	1,953	1,392	11,139	802
4	14,436	1,886	1,320	10,477	753
5	14,231	1,834	1,314	10,385	698
6	13,692	1,756	1,287	9,951	698
7	13,402	1,555	1,210	9,992	645
8	13,492	1,606	1,196	10,084	606
9	14,464	1,657	1,258	10,912	637
10	14,072	1,637	1,257	10,499	679
11	14,240	1,600	1,258	10,713	669
12	13,223	1,532	1,190	9,868	633
Specials 1/	9,403	1,123	687	7,168	425

1/ Includes ungraded students in special schools.
Source: Hawaii State Department of Education, records.

Table 100.-- FEDERALLY-CONNECTED PUPILS IN PUBLIC SCHOOLS: FALL, 1984 TO 1987

Category	1984	1985	1986	1987
All federally-connected pupils	38,927	38,046	37,843	37,721
Percent of total enrollment	23.8	23.2	23.0	22.7
Military dependents	20,304	20,037	19,907	20,540
Others 1/	18,623	18,009	17,936	17,181

1/ Includes dependents of civilian employees of armed forces.
Source: Hawaii State Department of Education, records.

Table 101.-- PRIVATE SCHOOLS, TEACHERS, AND ENROLLMENT, SEPTEMBER 11, 1987, AND PRIVATE HIGH SCHOOL GRADUATES, 1986-1987, BY CHURCH AFFILIATION

Church affiliation	Schools	Teachers	Enrollment	High school graduates
Total	138	2,536	36,179	2,606
Church-affiliated	94	1,495	23,746	1,426
Roman Catholic	38	731	12,750	848
Other church-affiliated	56	764	10,996	578
Non-church-affiliated ...	44	1,041	12,433	1,180

Source: Hawaii State Department of Education, records.

Table 102.-- EXPENDITURES, COST PER PUPIL, AVERAGE SALARIES, AND DAYS OF SCHOOL, FOR PUBLIC ELEMENTARY AND SECONDARY EDUCATION: 1977-1978 TO 1987-1988

Fiscal year	Expenditures (dollars)		Cost per pupil 1/ (dollars)	Average annual salary of teachers (dollars)	Number of days of school
	Current operations	Capital outlay			
1977-1978 ..	322,185,202	23,196,000	1,883.79	17,579	175
1978-1979 ..	333,768,126	20,809,000	1,981.35	18,360	173
1979-1980 ..	360,316,441	30,489,000	2,163.62	19,858	2/ 163
1980-1981 ..	402,344,699	30,860,000	2,457.32	21,085	176
1981-1982 ..	432,228,402	17,237,000	2,700.72	22,473	177
1982-1983 ..	497,763,951	23,304,890	3,098.23	21,504	3/ 174
1983-1984 ..	509,710,506	11,941,000	3,255.97	25,380	176
1984-1985 ..	526,741,742	13,652,707	3,351.18	25,648	174
1985-1986 ..	585,533,781	27,812,430	3,795.31	26,595	176
1986-1987 ..	589,592,735	23,445,100	3,748.38	27,546	176
1987-1988 ..	622,638,850	32,211,000	3,950.49	28,353	177

1/ Based on average daily membership.

2/ Scheduled school days numbered 177; 14 days were missed because of "blue collar strike."

3/ One day missed due to Hurricane Iwa.

Source: Hawaii State Department of Education, records.

Table 103.-- SCHOLASTIC APTITUDE TEST SCORE AVERAGES: 1975 TO 1988

Component	1974-75	1979-80	1984-85	1985-86	1986-87 1/	1987-88
Verbal	414	396	401	403	404	408
Math	478	472	476	477	477	480

1/ The U.S. averages in 1986-87 were 430 for verbal and 476 for math.
Source: U.S. Department of Education, National Center for Education Statistics, Digest of Education Statistics 1988 (September 1988), p. 111; Honolulu Advertiser, September 20, 1988, p. A-1.

Table 104.-- STANFORD ACHIEVEMENT TEST RESULTS FOR PUBLIC SCHOOL GRADES 3, 6, 8, AND 10: APRIL-MAY 1988

[Percent of students taking test]

Subject and level	Norm	Grade 3	Grade 6	Grade 8	Grade 10
Reading:					
Below average	23	23	21	25	24
Average	54	57	57	54	60
Above average	23	20	23	21	16
Math:					
Below average	23	19	19	28	22
Average	54	48	46	48	49
Above average	23	33	35	24	28

Source: Hawaii State Department of Education, Test Development and Administration Section, records.

Table 105.-- ENROLLMENT AT THE UNIVERSITY OF HAWAII, BY CAMPUS: FALL 1978 TO 1988

[Fall enrollment in regular credit programs, including concurrent registrants and early admits]

Year	Total, all campuses	University of Hawaii at Manoa				Univ. of Hawaii at Hilo 2/	West Oahu College
		Total	Under-graduates	Grad-uates	Other 1/		
1978 ..	43,803	21,225	15,148	4,350	1,727	3,053	234
1979 ..	43,375	20,833	14,902	4,258	1,673	3,099	258
1980 ..	43,542	20,319	14,402	4,235	1,682	3,504	247
1981 ..	45,425	20,629	14,487	4,324	1,818	3,478	369
1982 ..	47,527	21,065	14,879	4,328	1,858	3,752	410
1983 ..	46,468	21,112	15,091	4,339	1,682	3,613	433
1984 ..	43,970	20,023	14,234	4,255	1,534	3,237	435
1985 ..	43,369	19,666	13,565	4,283	1,818	3,200	443
1986 ..	42,837	18,977	12,762	4,438	1,777	3,300	480
1987 ..	43,054	18,448	12,254	4,400	1,794	3,553	482
1988 ..	42,767	18,477	12,121	4,382	1,974	3,634	492

Year	Community Colleges 3/						
	Total	Hono-lulu	Kapio-lani	Lee-ward	Wind-ward	Kauai	Maui
1978 ..	19,291	4,386	4,738	5,893	1,415	1,137	1,722
1979 ..	19,185	4,576	4,641	5,540	1,505	1,104	1,819
1980 ..	19,472	4,509	4,978	5,575	1,442	1,082	1,886
1981 ..	20,949	5,211	5,089	6,032	1,489	1,201	1,927
1982 ..	22,300	5,331	5,560	6,261	1,568	1,272	2,308
1983 ..	21,310	5,131	5,284	6,060	1,462	1,190	2,183
1984 ..	20,275	4,554	5,281	5,785	1,366	1,176	2,113
1985 ..	20,060	4,539	5,058	5,667	1,543	1,177	2,076
1986 ..	20,080	4,275	5,226	5,703	1,644	1,248	1,984
1987 ..	20,571	4,527	5,505	5,748	1,650	1,183	1,958
1988 ..	20,164	4,303	5,599	5,445	1,558	1,239	2,020

Footnotes and source follow next table.

Table 106.-- DEGREES, DIPLOMAS, AND CERTIFICATES AWARDED BY THE UNIVERSITY OF HAWAII: 1978 TO 1988

Year ended June 30	University of Hawaii at Manoa					
	Associate	Bachelor	Master	Doctor	First professional 4/	Other 5/
1978	61	3,213	1,007	129	125	157
1979	69	2,899	1,063	122	122	134
1980	46	2,859	969	102	136	124
1981	57	2,701	968	115	152	106
1982	52	2,588	993	111	137	122
1983	52	2,639	938	120	132	120
1984	60	2,698	945	101	131	166
1985	90	2,642	914	138	137	189
1986	66	2,679	837	132	131	244
1987	65	2,602	794	130	137	249
1988	54	2,521	830	111	126	260

Year ended June 30	University of Hawaii at Hilo 2/			West Oahu College: Bachelor	Community Colleges 3/	
	Certificates	Associate degrees	Bachelor degrees		Certificates 6/	Associate degrees
1978	69	280	206	12	456	1,864
1979	92	255	166	22	509	1,964
1980	86	256	160	48	481	1,807
1981	57	261	171	47	483	1,763
1982	74	263	160	46	519	1,882
1983	68	242	193	91	509	2,008
1984	80	239	188	136	473	2,026
1985	67	229	180	77	454	1,875
1986	56	196	183	98	478	1,933
1987 7/ .	56	202	201	139	378	1,840
1988	48	206	208	108	(NA)	(NA)

NA Not available.
1/ Includes unclassified, special and no data on student level.
2/ Hilo College, College of Agriculture, and Hawaii Community College.
3/ Excludes Hawaii Community College, which is part of the University of Hawaii at Hilo.
4/ Includes Doctor of Jurisprudence (J.D.) and Doctor of Medicine (M.D.).
5/ Certificates in Dental Hygiene and professional diplomas.
6/ Certificates of Achievement.
7/ Excludes 64 no data for community colleges.

Source: University of Hawaii, Office of Institutional Research and Analysis, records.

Table 107.-- UNIVERSITY OF HAWAII CURRICULA, TUITION, FINANCES, AND FACULTY AND STAFF: 1986 TO 1988

Subject		1986	1987	1988
Curricula offered at Manoa Campus, Fall 1/ ...		240	252	257
Bachelor's degree programs		86	85	88
Master's degree programs		81	84	84
Doctoral programs (DrPH, EdD, PhD)		46	48	49
Other programs 2/		27	35	36
Tuition per semester (full-time undergraduate, regular session):				
Manoa Campus:	Resident	$ 470	$ 515	$ 565
	Nonresident	1,685	1,840	1,840
Hilo (upper division):	Resident	425	475	525
	Nonresident	1,575	1,720	1,720
West Oahu College:	Resident	340	365	390
	Nonresident	1,170	1,240	1,240
Community colleges:	Resident	135	155	175
	Nonresident	940	1,030	1,130
Finances, fiscal year ending June 30:				
Current fund revenues ($1,000)		339,608	349,546	392,143
Current fund expenditures ($1,000)		332,566	340,375	374,529
Number of students receiving financial aid .		17,414	16,182	(NA)
Faculty and staff, October		6,898	6,973	7,168
Board of Regents appointees		5,278	5,360	5,482
Full-time		3,329	3,419	3,528
Part-time		1,949	1,941	1,954
Civil Service personnel		1,620	1,613	1,686
Full-time		1,580	1,566	1,637
Part-time		40	47	49

NA Not available.

1/ Data for 1986 and 1987 have been revised.

2/ Includes 2-year, undergraduate, and graduate certificate programs first professional degree programs (JD, MD), and other programs. Data for 1986 and 1987 have been revised.

Source: Office of Institutional Research and Analysis, University of Hawaii, Facts About the University of Hawaii (annual), and records.

Table 108.-- ENROLLMENT AND EARNED DEGREES CONFERRED, FOR PRIVATE COLLEGES AND UNIVERSITIES: 1985 TO 1988

[Excludes extension programs of mainland and foreign schools and other limited or specialized curriculum programs]

Year and institution 1/	Fall enrollment 2/			Earned degrees conferred 3/		
	Total	Undergrad	Graduate	Associate	Bachelor's	Master's
1985, total	8,620	8,396	224	222	663	53
Brigham Young ..	1,926	1,926	-	54	187	-
Chaminade	2,512	2,288	224	41	251	53
Hawaii Loa	475	475	-	-	45	-
Hawaii Pacific .	3,707	3,707	-	127	180	-
1986, total	9,082	8,661	421	252	736	74
Brigham Young ..	2,005	2,005	-	51	165	-
Chaminade	2,606	2,305	301	53	257	74
Hawaii Loa	400	400	-	1	70	-
Hawaii Pacific .	4,071	3,951	120	147	244	-
1987, total	9,576	9,038	538	303	827	132
Brigham Young ..	2,079	2,079	-	57	212	-
Chaminade	2,584	2,276	308	80	271	132
Hawaii Loa	399	399	-	4	68	-
Hawaii Pacific .	4,514	4,284	230	162	276	-
1988, total	9,612	8,957	655	343	876	136
Brigham Young ..	2,055	2,055	-	75	212	-
Chaminade	2,507	2,169	338	85	268	125
Hawaii Loa	490	490	-	3	103	-
Hawaii Pacific .	4,560	4,243	317	180	293	11

1/ Brigham Young University, Hawaii Campus (in Laie); Chaminade University of Honolulu; Hawaii Loa College (in Kaneohe); Hawaii Pacific College (in Honolulu).

2/ In regular credit programs.

3/ Year ended June 30. Data for 1984-1986 have been revised.

Source: Compiled by Hawaii State Department of Business and Economic Development from college officials.

Table 109.-- HIGHER EDUCATION ENROLLMENT, BY COUNTIES: 1978 TO 1988

[Fall totals. Includes college and university enrollment in credit programs]

Year	State total	Honolulu	Hawaii	Kauai	Maui
1978	49,736	43,824	3,053	1,137	1,722
1979	49,508	43,486	3,099	1,104	1,819
1980	49,871	43,399	3,504	1,082	1,886
1981	52,197	45,591	3,478	1,201	1,927
1982	54,354	47,022	3,752	1,272	2,308
1983	54,206	47,220	3,613	1,190	2,183
1984	52,185	45,659	3,237	1,176	2,113
1985	51,989	45,536	3,200	1,177	2,076
1986	51,907	43,375	3,300	1,248	1,984
1987	52,630	45,936	3,553	1,183	1,958
1988	52,379	45,486	3,634	1,239	2,020

Source: Tables 105 and 108, and corresponding tables in earlier editions.

Table 110.-- FEDERAL OBLIGATIONS TO UNIVERSITIES AND COLLEGES: 1982 TO 1986

[In thousands of dollars. Fiscal year data]

Institution	1982	1983	1984	1985	1986
All universities and colleges ...	41,150	36,522	38,299	50,421	47,676
University of Hawaii at Manoa ...	28,278	30,815	30,748	42,806	38,815

Source: National Science Foundation, Federal Support to Universities, Colleges, and Selected Nonprofit Institutions, Fiscal Year 1986, Detailed Statistical Tables, NSF 87-318 (1988), pp. 114 and 116.

Table 111.-- CHARACTERISTICS OF THE HAWAII STATE LIBRARY SYSTEM: 1982 TO 1987

Subject	1982	1983	1984	1985	1986	1987
Library locations, June 30	47	47	49	49	49	49
Oahu	22	22	23	23	23	23
Other islands	25	25	26	26	26	26
Personnel, June 30 1/ ..	473.95	482.55	492.05	497.05	497.55	497.55
Librarians	124.40	126.00	131.00	134.00	133.00	133.00
All others	349.55	356.55	361.05	363.05	364.55	364.55
Hours open 2/	54	54	54	54	54	54
Collections, June 30: Books 3/	2,239.0	2,203.4	2,207.4	1,976.8	2,096.8	2,073.8
Circulation, year ended June 30 3/	5,263.1	5,321.7	5,490.7	6,011.4	6,500.2	6,480.5

NA Not available.

1/ Full-time equivalent basis, excluding student help. For 1984 and 1985, data include permanent and temporary State general-funded positions and temporary Federal funded positions.

2/ Regular weekly totals for Hawaii State Library, 478 South King Street, Honolulu.

3/ In thousands.

Source: Hawaii State Public Library System, Research & Evaluation Services, August 10, 1988.

Table 112.-- CHARACTERISTICS OF THE HAWAII STATE LIBRARY SYSTEM BY DISTRICTS: 1987

District	Library locations, June 30	Personnel, June 30 1/	Circulation, year ended June 30
Total system	49	497.55	6,480,486
Oahu	22	262.50	
Hawaii State Library	1	84	539,965
East Oahu Library District	12	109.0	2,528,460
West Oahu Library District	9	69.5	1,462,470
Other islands	26	133.55	
Hawaii Library District	13	59.55	954,909
Kauai Library District	5	31.5	436,820
Maui Library District 2/	8	42.5	517,426
Library for the Blind and Physically Handicapped	1	14.5	40,436
Administration/Centralized Processing Center	...	87.0	...

District	Collections, June 30		
	Books	Periodical subscriptions	Phonodisks/ phonotapes
Total system	2,073,832	6,483	68,201
Oahu	1,401,492	4,212	43,477
Hawaii State Library	388,097	1,738	18,239
East Oahu Library District	633,473	1,534	17,703
West Oahu Library District	379,922	940	7,535
Other islands	640,337	2,101	22,337
Hawaii Library District	274,636	3/ 600	6,761
Kauai Library District	171,808	625	9,508
Maui Library District 2/	193,893	876	6,068
Library for the Blind and Physically Handicapped	4/ 32,003	4/ 170	5/ 2,387

1/ Full-time equivalent basis, including permanent and temporary State general-funded and temporary Federal funded positions, but excluding student help.

2/ Includes libraries on Lanai (1 location), Maui (6 locations), and Molokai (1 location).

3/ Hilo Public Library only.

4/ Includes print, braille, and recorded media, number of titles only.

5/ Includes music recordings only.

Source: Hawaii State Public Library System, Research & Evaluation Services, August 10, 1988.

Table 113.-- UNIVERSITY OF HAWAII LIBRARY SYSTEM HOLDINGS AND CIRCULATION, BY CAMPUS: 1985, 1987, AND 1988

Subject and campus	1985 1/	1987	1988
NUMBER OF VOLUMES, JUNE 30			
All campuses	2,443,863	2,616,130	2,709,892
University of Hawaii at Manoa	2,013,146	2,164,497	2,244,118
West Oahu College	19,444	21,577	20,482
University of Hawaii at Hilo 2/	178,555	188,692	194,692
Community colleges, total 2/	232,718	241,364	250,600
Honolulu	53,121	48,726	50,681
Kapiolani	33,471	37,215	38,982
Leeward	51,746	54,953	56,054
Windward	29,426	32,348	33,043
Kauai	34,293	36,090	37,736
Maui	30,661	32,032	34,104
CIRCULATION, YEAR ENDED JUNE 30			
All campuses	556,024	548,529	583,250
University of Hawaii at Manoa	351,280	332,036	374,260
West Oahu College	6,972	6,565	5,336
University of Hawaii at Hilo 2/	51,403	52,900	48,885
Community colleges, total 2/	146,369	157,028	154,769
Honolulu	47,355	48,448	46,735
Kapiolani	13,532	16,827	17,544
Leeward	37,831	39,339	38,407
Windward	13,738	13,842	15,070
Kauai	15,508	15,649	13,417
Maui	18,405	22,923	23,596

1/ Circulation data revised from Data Book 1987, table 129.

2/ Hawaii Community College is included with the University of Hawaii at Hilo.

Source: University of Hawaii at Manoa, University Libraries, records.

Section 4

LAW ENFORCEMENT, COURTS AND PRISONS

Statistics in this section refer to crimes committed, victims of crime, arrests, the police, attorneys, the judiciary system, prisons, and youth correctional facilities.

Major offenses reported to the police in 1987 numbered 63,600, compared with 55,400 in 1985 and 71,300 in 1980. The rate per 1,000 resident population increased from 53 in 1985 to 59 in 1987. Seventy-eight percent of the serious crimes in 1987 occurred on Oahu. For the State as a whole, major offenses known to police in 1987 included 53 murders or cases of non-negligent manslaughter, 396 rapes, 1,043 robberies, 1,364 aggravated assaults, 12,500 burglaries, 43,669 cases of larceny, and 3,986 auto thefts. The value of property reported stolen in 1987 amounted to $32 million, exclusive of motor vehicles; only 9.6 percent was recovered. Authorities confiscated 1,902,000 marijuana plants, with an estimated value of $1.9 billion, during the year. Confirmed instances of child abuse and neglect numbered 2,586 in 1986. Seventeen percent of the major offenses known to police were cleared by arrest or otherwise in 1987. Forty-six percent of the persons arrested for major crimes and 25 percent of those arrested for lesser offenses in 1987 were less than eighteen years of age. The number of inmates in the ten State correctional institutions averaged 2,094 during fiscal 1987; of this number, 1,429 were adults serving time for felonies. Cases concluded in the State Supreme Court, Intermediate Court of Appeals, four circuit courts, and four district courts and their divisions during fiscal 1986 numbered 861,000, including 731,000 traffic cases. Filings in the United States District Court for Hawaii in 1987 included 1,223 civil cases, 1,297 criminal cases, and 982 bankruptcy cases. The last legal execution in Hawaii took place in 1947. There were 3,762 attorneys licensed in Hawaii as of mid-1988. Criminal justice system expenditures amounted to $210 million in fiscal 1985.

Statistics on law enforcement, courts, and corrections in Hawaii appear in the annual reports of the county police departments, the State Judiciary, the Department of Corrections, and the Administrative Office of the United States Courts. The Hawaii Criminal Justice Data Center issues quarterly and annual reports titled Crime in Hawaii. Figures on crime, the courts, and corrections in earlier years appear in Historical Statistics of Hawaii, Section 10. National data are summarized in the Statistical Abstract of the United States: 1988, Section 5.

Table 114.-- ACTUAL MAJOR (PART I) OFFENSES KNOWN TO THE POLICE, BY COUNTIES: 1977 TO 1987

[Part I offenses include murder, negligent and nonnegligent manslaughter, forcible rape, robbery, aggregated assault, burglary, larceny-theft, motor vehicle theft, and, since 1979, arson. Arson, however, is excluded from this table through 1984. Actual offenses include reported or known offenses, less unfounded cases]

Year	State total		City and County of Honolulu	Hawaii County	Kauai County	Maui County
	Number	Rate 1/				
1977	57,978	63.3	46,389	4,178	2,127	5,284
1978	63,333	68.2	51,273	4,455	2,407	5,198
1979	65,597	69.0	52,310	4,634	2,425	6,228
1980	71,292	73.6	56,885	5,222	2,637	6,548
1981	63,454	64.7	48,938	5,623	2,505	6,388
1982	64,679	64.8	49,826	5,516	2,515	6,822
1983	59,086	58.0	45,874	4,869	2,303	6,040
1984	56,913	54.9	44,560	4,697	2,145	5,511
1985 2/ ..	55,372	52.7	42,475	5,147	2,144	5,606
1986 2/ ..	60,716	57.0	46,842	5,370	2,428	6,076
1987 2/ ..	63,576	58.7	49,418	4,956	2,555	6,647

1/ Annual rate per 1,000 resident population, July 1.

2/ Includes arson, omitted before 1985. Excluding arson, the 1985 statewide total was 54,814 offenses, or 52.1 per 1,000 inhabitants.

Source: Hawaii Criminal Justice Data Center, Crime in Hawaii (annual), and data compiled from Police Department annual reports and records.

Table 115.-- ACTUAL PART I OFFENSES KNOWN TO THE POLICE, BY TYPE OF OFFENSE, FOR THE STATE OF HAWAII: 1978 TO 1987

Offense	1978	1979	1980	1981	1982
All Part I offenses	63,333	65,597	71,292	63,454	64,679
Murder, non-neg. manslaughter	57	67	85	47	31
Negligent manslaughter	132	135	135	98	29
Forcible rape	225	296	327	314	319
Robbery	1,561	1,674	1,821	1,444	1,561
Aggravated assault	529	587	620	570	590
Burglary	17,203	16,390	17,668	16,611	16,337
Larceny	38,497	39,942	44,766	40,102	41,568
Motor vehicle theft	5,129	6,506	5,870	4,268	4,244
Arson 1/	...	...	...	...	...

Offense	1983	1984	1985	1986	1987
All Part I offenses	59,086	56,913	55,372	60,716	63,576
Murder, non-neg. manslaughter	57	34	43	51	53
Negligent manslaughter 2/	29	-	-	-	63
Forcible rape	300	315	310	329	396
Robbery	1,315	1,202	1,048	1,129	1,043
Aggravated assault	868	857	912	1,095	1,364
Burglary	13,589	12,588	12,164	14,218	12,500
Larceny	38,585	38,292	37,357	39,922	43,669
Motor vehicle theft	4,343	3,625	2,980	3,486	3,986
Arson 1/	...	...	558	486	502

1/ Not included in Part I offense tabulations before 1985.

2/ Not separately reported in 1984, 1985, and 1986.

Source: Compiled by Hawaii Criminal Justice Data Center from Annual Reports of the Hawaii County Police Department, Honolulu Police Department, Kauai Police Department, and Maui Police Department.

Table 116.-- ACTUAL OFFENSES KNOWN TO POLICE AND OFFENSES CLEARED BY ARREST OR OTHERWISE, BY CLASS OF OFFENSE: 1977 TO 1987

[Arson, reclassified as a Part I offense effective 1979, is included as a Part II offense in this table prior to 1986]

Year	Actual offenses known to police		Number cleared by arrest or otherwise 1/		Clearances per 100 offenses 1/	
	Part I	Part II, except traffic	Part I	Part II, except traffic	Part I	Part II, except traffic
1977 ..	57,978	72,934	11,978	46,114	20.7	63.2
1978 ..	63,333	84,926	12,101	56,275	19.1	66.3
1979 ..	65,597	89,365	11,933	56,988	18.2	63.8
1980 ..	71,292	93,712	12,753	55,233	17.9	58.9
1981 ..	63,454	94,179	10,295	56,154	16.2	59.6
1982 ..	64,679	92,898	10,934	53,318	16.9	57.4
1983 ..	59,086	88,299	10,355	53,010	17.5	60.0
1984 ..	56,852	94,240	9,553	59,272	16.8	62.9
1985 ..	54,814	97,661	10,066	62,016	18.4	63.5
1986 ..	60,716	100,283	10,663	61,094	17.6	60.9
1987 ..	63,576	107,259	12,282	66,416	19.3	61.9

1/ Data include prior years' offenses cleared in current year.

Source: Data compiled by Hawaii Criminal Justice Data Center from Police Department annual reports and Uniform Crime Reporting Program.

Table 117.-- ACTUAL OFFENSES KNOWN TO POLICE AND OFFENSES CLEARED BY ARREST OR OTHERWISE, BY CLASS OF OFFENSE, BY COUNTIES: 1987

[Arson is classified as a Part I offense]

County	Actual offenses known to police		Number cleared by arrest or otherwise 2/		Clearances per 100 offenses 2/	
	Part I	Part II, except traffic	Part I	Part II, except traffic	Part I	Part II, except traffic
State total .	63,576	107,259	12,282	66,416	19.3	61.9
Honolulu	49,418	78,423	9,383	53,665	19.0	68.4
Hawaii	4,956	8,706	1,415	5,356	28.6	61.5
Kauai	2,555	3,864	567	1,827	22.2	47.3
Maui	6,647	16,266	917	5,568	13.8	34.2

1/ Data include prior years' offenses cleared in current year.

Source: Hawaii Criminal Justice Data Center, from data provided by county police departments.

Table 118.-- MAJOR OFFENSES REPORTED TO POLICE PER 100,000 POPULATION, BY RESIDENCE OF VICTIM, FOR OAHU, 1981-1982, AND KAUAI, 1978-1980

[Annual averages for Part I offenses. Resident victimization rates based on resident population estimates; visitor victimization rates, on estimated average visitor census]

Offense	Oahu		Kauai	
	Residents	Visitors	Residents	Visitors
All crimes ..	5,685.5	7,342.4	5,681.0	5,616.8
Violent crimes ...	233.0	296.2	228.0	200.0
Property crimes ..	5,452.5	7,046.2	5,453.0	5,416.8

Source: Meda Chesney-Lind and Ian Y. Lind, Visitors As Victims: Crimes Against Tourists in Two Hawaii Counties (University of Hawaii, School of Social Work, Youth Development and Research Center, Research Report No. 293, February 1984), pp. 11a and 12a.

Table 119.-- ACTUAL PART I OFFENSES KNOWN TO POLICE AND PART I OFFENSES CLEARED BY ARREST OR OTHERWISE, FOR THE STATE AND OAHU: 1987

Type of offense	Actual offenses known to police		Number cleared by arrest or otherwise 1/		Clearances per 100 offenses 1/	
	State total	Oahu only	State total	Oahu only	State total	Oahu only
All Part I offenses	63,576	49,418	12,282	9,383	19.3	19.0
Murder and nonnegligent manslaughter	53	37	40	30	75.5	81.1
Manslaughter (neg.) ...	63	63	35	35	55.6	55.6
Rape	396	325	217	178	54.8	54.8
Robbery	1,043	967	339	305	32.5	31.5
Aggravated assault	1,364	934	694	453	50.9	48.5
Burglary	12,500	9,121	1,463	1,008	11.7	11.1
Larceny	43,669	34,229	8,656	6,736	19.8	19.7
Motor vehicle theft ...	3,986	3,338	777	590	19.5	17.7
Arson	502	404	61	48	12.2	11.9

1/ Data include clearance of offenses reported in previous years.

Source: Hawaii Criminal Justice Data Center, from data provided by county police departments.

Table 120.-- PERSONS ARRESTED FOR PART I AND PART II OFFENSES, BY AGE AND SEX, FOR COUNTIES: 1987

Subject	State total	Counties			
		Honolulu	Hawaii	Maui	Kauai
PART I OFFENSES 1/					
Total	12,500	9,615	1,172	999	714
Juveniles	5,713	4,547	469	383	314
Male	4,306	3,474	312	263	257
Female	1,407	1,073	157	120	57
Adults	6,787	5,068	703	616	400
Male	4,940	3,728	485	462	265
Female	1,847	1,340	218	154	135
PART II OFFENSES (EXCEPT TRAFFIC)					
Total	42,327	32,758	4,312	2,789	2,468
Juveniles	10,428	7,694	1,072	723	939
Male	6,869	5,091	680	510	588
Female	3,559	2,603	392	213	351
Adults	31,899	25,064	3,240	2,066	1,529
Male	27,449	21,676	2,700	1,797	1,276
Female	4,450	3,388	540	269	253

1/ Includes arson.
Source: Hawaii Criminal Justice Data Center, tabulation from Uniform Crime Reports.

Table 121.-- MARIJUANA CONFISCATED OR DESTROYED BY AUTHORITIES, BY COUNTIES: 1984 TO 1987

Calendar year	Number of plants, by counties					Estimated value 1/ (million dollars)
	State total	Hawaii	Maui	Honolulu	Kauai	
1984	533,238	325,761	37,388	120,238	49,851	533
1985	809,839	563,621	79,537	73,452	93,229	810
1986	1,050,650	742,238	101,662	31,372	175,378	1,051
1987 2/ .	1,901,646	1,737,685	70,181	20,464	73,316	1,902

1/ At $1,000 per plant. Excludes value of confiscated processed marijuana.

2/ Hawaii County total includes plants destroyed by the Department of Land and Natural Resources (493,561) as well as by the Hawaii County Police Department (1,244,124).

Source: Compiled from county police departments by the Hawaii Criminal Justice Data Center.

Table 122.-- ESTIMATED HARVEST VALUE OF MARIJUANA, FOR THE UNITED STATES AND HAWAII: 1984 AND 1987

Subject	1984	1987
United States harvest value (billion dollars)	16.6	33
Hawaii harvest value (billion dollars)	1.0	1.33
Rank (50 States)	2	6

Source: Estimates by Drug Enforcement Administration and National Organization for the Reform of Marijuana Laws, cited in Honolulu Star-Bulletin, January 7, 1985, p. A-4, and July 20, 1988, p. A-14.

July

Table 123.-- CHILD ABUSE AND NEGLECT REPORTS: 1980 TO 1986

[Revised from Data Book 1987, table 139]

Subject	1980	1981	1982	1983	1984	1985	1986
Reports	2,104	2,358	2,684	3,635	4,385	4,346	4,824
Confirmed ..	1,057	1,136	1,379	1,622	2,181	2,386	2,586

Source: Hawaii State Department of Human Services, records.

Table 124.-- VALUE OF PROPERTY REPORTED STOLEN AND VALUE OF STOLEN PROPERTY RECOVERED, BY CATEGORY: 1977 TO 1987

Year	Locally stolen motor vehicles			Other stolen property		
	Value stolen ($1,000)	Value recovered 1/		Value stolen ($1,000)	Value recovered 1/	
		Amount ($1,000)	Percent		Amount ($1,000)	Percent
1977 ...	6,909.2	5,004.2	72.4	17,869.7	1,507.9	8.4
1978 ...	9,284.8	6,485.0	69.8	22,430.8	2,187.2	9.8
1979 ...	14,469.1	9,999.0	69.1	24,903.4	2,639.5	10.6
1980 ...	14,075.2	10,296.9	73.2	31,832.9	2,102.2	6.6
1981 ...	12,033.6	9,387.9	78.0	31,667.8	2,380.6	7.5
1982 ...	12,524.0	8,328.0	66.5	26,001.2	2,028.3	7.8
1983 ...	13,904.4	9,474.9	68.1	25,941.6	2,151.1	8.3
1984 ...	12,327.9	9,110.0	73.9	26,576.6	1,861.3	7.0
1985 ...	10,376.8	7,683.9	74.0	24,114.3	2,003.5	8.3
1986 ...	11,491.6	7,857.3	68.4	28,236.2	1,931.2	6.8
1987 ...	13,222.5	10,021.0	75.8	32,071.0	3,089.0	9.6

1/ Includes property stolen in previous years.

Source: Hawaii Criminal Justice Data Center, tabulations from Uniform Crime Reports.

Table 125.-- VALUE OF PROPERTY REPORTED STOLEN AND VALUE OF STOLEN PROPERTY RECOVERED, BY COUNTIES: 1987

Subject	State total	Counties			
		Honolulu	Hawaii	Maui	Kauai
Value of property stolen ($1,000)	45,293.5	36,153.1	2,365.1	4,863.5	1,901.8
Motor vehicles	13,222.5	10,577.4	516.0	1,601.1	528.0
Other property	32,071.0	25,575.7	1,849.1	3,272.4	1,373.8
Value of stolen property recovered 1/ ($1,000)	13,110.0	10,522.7	709.3	1,469.3	408.7
Motor vehicles	10,021.0	7,975.3	434.3	1,240.7	370.7
Other property	3,089.0	2,547.4	275.0	228.6	38.0
Percent of value recovered	28.9	29.1	30.0	30.1	21.5
Motor vehicles	75.8	75.4	84.2	77.5	70.2
Other property	9.6	10.0	14.9	7.0	2.8

1/ Includes property stolen in previous years.

Source: Hawaii Criminal Justice Data Center, tabulation from Uniform Crime Reports.

Table 126.-- POLICE PERSONNEL, BY COUNTIES: 1986

Subject	State total	Honolulu	Hawaii	Kauai	Maui
Police personnel	2,745	1,974	345	134	292
Per 1,000 de facto population	2.33	2.25	2.88	2.21	2.43

Source: County police department annual reports.

Table 127.-- STATE AND COUNTY GOVERNMENT EMPLOYMENT AND EXPENDITURES FOR CRIMINAL JUSTICE ACTIVITIES: 1985

Subject	Total	Police protection	Correction	Judicial and legal
Total employment, Oct.	1/ 3,886	2,832	1,054	...
Expenditures, fiscal year (mil. dol.)	210	91	44	75

1/ Excludes judicial and legal employment, not reported.
Source: Data from U.S. Bureau of the Census, cited in Statistical Abstract of the United States: 1988, p. 169.

Table 128.-- CRIMINAL JUSTICE POSITIONS AND EXPENDITURES: FISCAL YEAR 1983-1984

Agency	Authorized positions (full-time equivalent)	Expenditures (dollars)
Total	5,339.0	145,489,650
Police	1/ 2,831.0	78,320,670
Prosecutors	243.0	7,920,380
Judiciary	1,191.0	32,002,471
Corrections	996.0	25,458,647
Intake Service Centers	58.0	1,353,434
Hawaii Paroling Authority	20.0	434,048

1/ Based on full-time positions only (sworn and non-sworn).
Source: Department of the Attorney General, Hawaii Criminal Justice Data Center, Management and Administrative Statistics for the Criminal Justice System in the State of Hawaii, Research and Statistics Report MAS3 (June 1986), pp. 169-170, as revised.

Table 129.-- COURTS, JUDGES, MAGISTRATES, AND ATTORNEYS: 1986 TO 1988

[As of June 30]

Subject	1986	1987	1988
Federal judges and magistrates: 1/			
U.S. Bankruptcy Court	1	1	1
U.S. District Court	7	8	9
State justices and judges: 2/			
Supreme Court	5	5	5
Intermediate Court of Appeals	3	3	3
Circuit Courts 3/	24	24	24
Assigned to Family Court	1	1	1
District Courts 4/	30	30	30
Assigned to Family Court	8	8	8
Land Court	(5/)	(5/)	(5/)
Tax Appeal Court	(5/)	(5/)	(5/)
Attorneys licensed in Hawaii 6/	3,373	3,581	3,762

1/ Full-time and part-time. Includes visiting judges and magistrates. In addition, one judge of the U.S. Court of Appeals maintains an office in Honolulu.

2/ Authorized full-time positions.

3/ Includes one judge assigned to the Family Court, a division of the Circuit Courts. In addition, Circuit Court judges may be assigned to hear matters before the Land Court and Tax Appeal Court, both of which are specialized courts separate from the Circuit Courts. There are four Circuit Courts, convened in five locations.

4/ Includes judges assigned to the Family Court, a division of the Circuit Courts. There are four District Courts, one in each of the four judicial circuits, convened in 23 locations.

5/ Caseload assigned to Circuit Court judges.

6/ Includes judges.

Source: Office of the Clerk, U.S. District Court, records; Office of the Administrative Director of the Courts, State Judiciary, records.

Table 130.-- UNITED STATES DISTRICT COURT CASES: 1985 TO 1987

[Years ended June 30]

Subject	1985	1986	1987
Civil cases:			
Commenced	1,575	1,208	1,223
Terminated	1,104	994	939
Pending, end of period	2,024	2,238	2,522
Criminal cases: 1/			
Commenced	3,066	1,558	1,297
Terminated	3,005	1,697	1,555
Pending, end of period	1,315	1,161	891
Bankruptcy:			
Commenced, total	609	782	982
Business	246	253	221
Nonbusiness	363	529	761
Terminated	483	586	742
Pending, end of period	1,867	2,063	2,303

1/ Excludes transfers.
Source: Annual Report of the Director of the Administrative Office of the United States Courts for 1985, 1986, and 1987.

Table 131.-- STATE JUDICIARY TERMINATIONS: 1978 TO 1988

[Fiscal years ended June 30]

Court and type of case	1978	1979	1980	1981	1982	1983
All courts, total ..	719,773	818,750	760,231	890,048	946,347	999,447
Supreme Court 1/	729	876	1,023	1,158	1,434	1,483
Civil cases	95	111	75	116	168	250
Criminal cases	68	149	150	136	140	164
Other proceedings	566	616	798	906	1,126	1,069
Intermediate Court of Appeals 2/	...	...	42	350	298	222
Civil cases	...	...	13	157	136	91
Criminal cases	...	...	21	45	27	35
Other proceedings	...	...	8	148	135	96
Circuit Courts proper ...	9,151	8,744	10,581	8,778	9,882	10,304
Civil cases	4,073	3,367	3,871	3,627	4,401	4,732
Criminal cases	1,716	1,962	2,279	1,853	2,145	1,865
Part I offenses	764	837	844	788	937	737
Part II offenses	952	1,125	1,435	1,065	1,208	1,128
Other proceedings	3,362	3,415	4,431	3,298	3,336	3,707
Family Courts	20,194	20,952	21,525	20,442	21,179	22,176
Civil cases	9,314	10,277	10,510	9,252	10,121	9,619
Criminal cases	50	40	81	45	47	45
Other proceedings	10,830	10,635	10,934	11,145	11,011	12,512
District Courts	689,699	788,178	727,060	859,320	913,554	965,262
Civil cases	10,200	11,382	11,894	15,992	22,597	18,926
Traffic cases	640,468	733,196	669,033	792,767	841,844	897,713
Other violations	18,888	22,096	22,696	24,401	24,066	23,351
Criminal cases	20,143	21,504	23,437	26,160	25,047	25,272
Part I offenses	3,368	3,651	3,513	4,426	4,275	5,259
Part II offenses	16,775	17,853	19,924	21,734	20,772	20,013

Continued on next page.

Table 131.-- STATE JUDICIARY TERMINATIONS: 1978 TO 1988 -- Con.

Court and type of case	1984	1985	1986	1987	1988
All courts, total ..	930,586	945,903	950,387	860,866	820,112
Supreme Court 1/	1,817	2,769	2,588	2,371	2,883
Civil cases	174	199	287	262	247
Criminal cases	228	241	312	254	287
Other proceedings	1,415	2,329	1,989	1,855	2,349
Intermediate Court of Appeals 2/	183	179	224	248	188
Civil cases	97	70	87	91	68
Criminal cases	23	28	42	49	60
Other proceedings	63	81	95	108	60
Circuit Courts proper ...	21,573	13,248	13,467	10,604	11,321
Civil cases	13,918	6,288	7,465	5,622	4,977
Criminal cases	4,383	3,252	2,717	2,305	2,752
Part I offenses	1,810	1,309	1,073	925	1,013
Part II offenses	2,573	1,943	1,644	1,380	1,739
Other proceedings	3,272	3,708	3,285	2,677	3,592
Family Courts	27,583	28,773	34,635	40,130	34,433
Civil cases	12,722	11,833	16,038	14,294	11,709
Criminal cases	233	149	163	650	309
Other proceedings	14,628	16,791	18,434	25,186	22,415
District Courts	879,430	900,934	899,473	807,513	771,287
Civil cases	18,920	19,509	20,354	20,402	21,643
Traffic cases	811,816	831,505	822,295	730,573	708,365
Other violations	20,803	18,101	26,842	24,885	9,284
Criminal cases	27,891	31,819	29,982	31,653	31,995
Part I offenses	5,340	4,777	4,326	4,567	5,208
Part II offenses	22,551	27,042	25,656	27,086	26,787

1/ Data exclude cases transferred to the Intermediate Court of Appeals: 281 in 1980, 121 in 1981, 132 in 1982, 94 in 1983, 105 in 1984, 142 in 1985, 135 in 1986, 137 in 1987, and 120 in 1988.

2/ The Intermediate Court of Appeals was installed on April 18, 1980. Data exclude cases transferred back to the Supreme Court: 1 in 1981, 4 in 1982, 1 in 1983, 1 in 1984, and 1 in 1987.

Source: Hawaii State Judiciary, Office of the Administrative Director of the Courts, records.

Table 132.-- STATE JUDICIARY CASES FILED, BY TYPE OF ACTION: 1985 TO 1987

[Years ended June 30]

Court and type of action	1985	1986	1987
Supreme Court, total	2,946	2,564	2,532
Primary cases	628	734	749
Appeals	570	677	694
Original proceedings	58	57	55
Supplemental proceedings	2,318	1,830	1,783
Intermediate Court of Appeals, total ..	208	222	241
Primary cases	132	132	134
Appeals	132	132	134
Supplemental proceedings	76	90	107
Circuit Courts Proper, total	14,633	14,297	13,326
Primary proceedings	13,449	13,338	12,717
Civil actions	6,709	6,718	5,987
Probate proceedings	1,797	1,733	1,830
Guardianship proceedings	375	518	449
Miscellaneous proceedings	1,614	1,309	1,519
Criminal actions	2,954	3,060	2,932
Part I offenses	1,193	1,086	1,084
Part II offenses	1,761	1,974	1,848
Supplemental proceedings	1,184	959	609
Family Courts, total	30,049	33,902	37,639
Primary proceedings, referrals	24,409	26,502	29,375
Marital actions, proceedings	7,634	7,508	7,379
Adoption proceedings	770	677	690
Paternity/parental proceedings	993	1,034	1,380
Miscellaneous proceedings	2,884	3,123	3,390
Criminal actions	203	364	963
Adults' referrals	2,028	2,394	2,666
Children and minors' referrals	9,897	11,402	12,907
Supplemental proceedings	5,640	7,400	8,264
District Court, total	930,341	960,221	882,335
Civil	20,622	21,263	22,676
Regular	15,324	15,671	17,092
Small claims	5,298	5,592	5,584
Traffic	853,483	872,292	794,021
Moving - arrest and citation	200,158	196,385	173,332
Non-moving	139,493	124,217	112,032
Parking	513,832	551,690	508,657
Other violations	23,730	36,070	32,692
Criminal actions	32,506	30,596	32,946
Part I offenses	4,732	4,324	4,711
Part II offenses	27,774	26,272	28,235

Source follows next table.

Table 133.-- STATE JUDICIARY CASE TERMINATIONS, BY TYPE: 1985 TO 1987

[Years ended June 30]

Court and type of termination	1985	1986	1987
Supreme Court, total	2,911	2,723	2,508
Opinion filed	283	377	315
Dismissal motion granted	19	53	22
Withdrawn or discontinued	106	56	56
Transferred	142	135	137
Other disposition	2,361	2,102	1,978
Intermediate Court of Appeals, total	179	224	249
Opinion filed	99	124	135
Dismissal motion granted	-	1	2
Withdrawn or discontinued	6	3	2
Transferred	-	-	1
Other disposition	74	96	109
Circuit Courts Proper, total	13,248	13,467	10,604
No service	332	466	382
No answer	436	382	325
No statement of readiness	23	196	101
Dismissal: Notice of	799	1,088	742
Stip. for	3,347	3,823	3,316
By judge	901	904	486
Nonjury: Trial	272	206	212
Trial not completed	14	60	6
Jury: Verdict	377	327	302
Trial not completed	16	11	5
No trial held	1,950	1,634	1,442
Hearings: Contested	361	241	233
Uncontested	1,905	1,756	1,312
Others	2,515	2,373	1,740
Family Courts, total	28,773	34,635	40,130
Nolle prosequi	12	14	5
Dismissal	33	24	83
Nonjury: Trial	35	115	480
Trial not completed	-	4	2
Jury: Verdict	1	3	1
Trial not completed	-	-	-
No trial held	909	1,450	1,150
Hearings: Contested	4,071	3,508	3,050
Uncontested	10,407	14,041	19,711
Counseling service	6,338	6,299	6,629
Others	6,967	9,177	9,019

Continued on next page.

Table 133.-- STATE JUDICIARY CASE TERMINATIONS, BY TYPE: 1985 TO 1987 -- Con.

[Years ended June 30]

Court and type of termination	1985	1986	1987
District Court, total	900,934	899,473	807,513
Felonies	1,689	1,302	1,625
Stricken or discharged	230	256	235
By commitment to Grand Jury	52	33	41
By commitment to Circuit Court	1,407	1,013	1,349
Misdemeanors	30,130	28,680	30,028
By discharge or dismissal	7,833	8,137	8,019
By nolle prosequi	1,306	1,580	1,761
Stricken	1,546	1,463	1,582
By bail forfeiture	2,396	2,043	1,801
By commitment to Circuit Court	426	398	345
By conviction	16,623	15,059	16,520
Civil cases	19,509	20,354	20,402
By discontinuance or dismissal	7,086	8,149	7,257
By default or confession	11,644	11,439	12,483
By trial	662	647	550
By commitment to Circuit Court	117	119	112
Traffic and other violations	849,606	849,137	755,458
By discharge or dismissal	104,748	87,593	56,711
By nolle prosequi	21,479	17,247	16,159
Stricken	58,742	48,547	36,910
By bail forfeiture	518,649	550,982	523,303
By commitment to Circuit Court	96	61	153
By conviction	145,892	144,707	122,222

Source: The Judiciary, State of Hawaii, Annual Report, July 1, 1984 to June 30, 1985, Statistical Supplement, tables 1A, 1B, 7, 17, and 22; The Judiciary, State of Hawaii, Annual Report, July 1, 1985 to June 30, 1986, Statistical Supplement, tables 1A, 1B, 7, 17, and 22; The Judiciary, State of Hawaii, Annual Report, July 1,1986 to June 30, 1987, Statistical Supplement, tables 1A, 1B, 7, 17, and 22.

Table 134.-- INMATES PRESENT IN STATE CORRECTIONAL FACILITIES: ANNUAL AVERAGES, 1978 TO 1988

[Mean head count for fiscal years ended June 30]

Year	All categories	Adult facilities 1/			Juvenile facilities 2/	
		Sentenced felons	Sentenced jail 3/	Not sentenced	Boys	Girls
1978	592	351	48	129	54	10
1979	698	412	48	170	61	7
1980	817	480	74	177	76	10
1981	952	561	82	210	88	11
1982	1,155	681	86	295	85	8
1983	1,402	812	120	391	73	6
1984	1,652	974	166	435	71	6
1985	1,898	1,223	204	392	72	7
1986	2,009	1,331	240	348	78	12
1987	2,094	1,429	202	374	79	10
1988	2,194	1,414	219	484	63	14

1/ For 1988, the head counts represent the number of inmates who were confined to nine facilities: Oahu, Hawaii, Kauai, and Maui Community Correctional Centers, Kulani Correctional Facility, Halawa High Security Facility, Halawa Medium Security Facility, Women's Community Correctional Center, and Waiawa Correctional Facility.

2/ Hawaii Youth Correctional Facility.

3/ Includes felon probationers serving jail terms under one year.

Source: Hawaii State Department of Corrections, records.

Table 135.-- MEDIAN AGES AND AVERAGE SENTENCES OF SENTENCED FELON POPULATION: 1978 TO 1988

[Years ended June 30. These data cover only sentenced felons under the jurisdiction of the State's correctional facilities, in hospitals, in mainland facilities, and on community release status. Parolees are not included. Average sentence calculations include life with parole sentences]

Year	Median age (years) 1/		Average sentences (months)				
			Felons admitted		Felons released		
	At admission	Currently as of June 30	Minimum	Maximum	Minimum	Maximum	Time served
1978	25.3	27.6	52.6	99.1	38.5	108.0	35.8
1979	26.5	26.6	59.8	119.0	34.8	89.2	36.9
1980	26.1	25.3	69.4	151.3	53.7	113.6	46.4
1981	27.0	27.8	40.7	173.5	55.7	124.9	47.4
1982	26.8	27.3	38.8	135.8	58.8	131.6	52.2
1983	27.5	29.2	49.2	127.2	40.5	98.5	47.5
1984	27.9	30.3	53.8	142.2	39.7	112.8	46.2
1985	29.3	28.2	47.5	145.7	53.0	126.0	42.7
1986	30.4	29.4	33.3	133.5	54.1	122.7	39.8
1987	27.0	31.0	45.9	190.8	42.5	132.4	38.0
1988	29.0	29.0	38.7	122.9	61.1	126.9	39.4

1/ For sentenced felon population on June 30. Due to a change in computerized data systems, data for 1983 and later years are not directly comparable with figures for previous years.

Source: State Department of Corrections, State Intake Service Centers, Felony Offender Computerized Update System (FOCUS), Comprehensive Offender Monitoring and Program Assessment System (COMPAS), and Hawaii Paroling Authority Records.

Table 136.-- HAWAII PAROLING AUTHORITY STATISTICAL SUMMARY: 1986 AND 1987

[Years ended June 30]

Item	1986	1987
Number of parolees, June 30 1/	797	850
Parolees in Hawaii	473	569
Parolees outside Hawaii	83	152
Absconders and suspensions (cumulative)	241	129
Minimum imprisonment terms fixed	1,241	1,063
Number of persons for whom terms fixed	435	405
Persons considered for parole	444	494
Paroles tentatively granted	330	336
Paroles denied	114	158
Persons reconsidered for minimum terms previously set	204	287
Terms reset	1	8
Terms reset/parole granted	187	245
Terms undisturbed	14	31
Deferred reconsideration	2	3
Parole violation hearings	58	77
Parole revocations	49	77
Continued on parole	6	-
Deferred decision/hearing	3	-
Pardon investigations	16	14
Persons pardoned	13	10
Persons whose paroles were suspended because their whereabouts unknown	19	39
Discharges	76	237
Discharged from parole	57	90
Final discharge	16	20
Deceased	3	-
Administrative 2/	-	127

1/ In addition, provided courtesy supervision to 20 interstate cases on June 30, 1986 and and 36 on June 30, 1987.

2/ Persons convicted prior to 1970, age 65 or older and classified absconder or suspended.

Source: Hawaii State Department of Social Services and Housing, 1987 Annual Report, Hawaii Paroling Authority.

Section 5

GEOGRAPHY AND ENVIRONMENT

This section relates to land and water areas, physical geography, climate, air and water quality, noise, and other geographic and environmental measurements of Hawaii. Most statistics on land use and ownership, however, appear in Section 6.

The State consists of eight major islands and 124 minor islands with a total land area of 6,425 square miles and a general coastline of 750 miles. Honolulu is 214 miles from Hilo, 1,367 miles from Kure Atoll (the westernmost end of the State), 2,397 miles from San Francisco, and 4,829 miles from Washington, D.C. The highest peak in the State is Mauna Kea, 13,796 feet above sea level; the longest stream is Kaukonahua Stream, Oahu, 33 miles in length; the most extensive lake or similar body is Kawainui Marsh, 1,000 acres; and the highest named waterfall is Kahiwa, Molokai, a 1,750-foot cascade. Various measures of air pollution, such as suspended particulate matter, indicate that Honolulu is one of the cleanest cities in the nation. There is also relatively little water pollution: the 34 major beaches surveyed in 1987 were found to have fecal coliform levels per 100 ml. ranging from 2.0 to 89.7, and all of them were within EPA standards. More than 1,200 species, subspecies, and varieties of native fauna and flora have been proposed or accepted for inclusion on lists of endangered, threatened, or extinct organisms.

Climatically, Hawaii is marked by remarkably balmy temperatures and wide variations in rainfall. The all-time temperature range at Honolulu International Airport, for example, was from 53° to 94°F. Average precipitation, however, ranges from less than nine inches at Kawaihae to 444 inches atop Waialeale. The largest volcanic eruption in Island history (begun in 1983) had produced more than one billion cubic yards of lava by August 1988. The worst earthquake (1868) attained 7.5 on the Richter scale, the highest tsunami wave (1946) reached 56 feet, and the most destructive hurricane (Iwa, 1982) gusted to 117 miles per hour. Water withdrawn for use in 1985 averaged 1.4 billion gallons per day, compared with 2.9 billion in 1980 and 2.8 billion in 1975. Among 31 neighborhoods on Oahu, median noise levels in 1981-1982 ranged from 37 decibels (in Mililani) to 57 decibels (in Pawaa).

Important sources of data include the U.S. Geological Survey, National Ocean Survey, National Weather Service, U.S. Bureau of the Census Geography Division, the Division of Water and Land Development of the State Department of Land and Natural Resources, the State Department of Health, and the University of Hawaii Institute of Geophysics. Detailed information is given in Atlas of Hawaii, 2nd edition, published by the University of Hawaii Press in 1983. National data are reported in Statistical Abstract of the United States: 1988, Section 6.

Table 137.-- GREAT CIRCLE DISTANCES BETWEEN SPECIFIED PLACES

Place	Statute miles	Kilometers
DISTANCES FROM HONOLULU INTERNATIONAL AIRPORT		
Hawaiian Islands locations:		
Hilo, Hawaii	214	344
Kailua, Kona, Hawaii	168	270
Kahului, Maui	98	158
Lanai Airport	72	116
Molokai Airport	54	87
Lihue, Kauai	103	166
Puuwai, Niihau	152	245
Nihoa	283	455
Necker Island	520	837
French Frigate Shoals	556	895
Gardner Pinnacles	688	1,107
Maro Reef	851	1,369
Laysan Island	936	1,506
Lisianski Island	1,065	1,714
Pearl and Hermes Atoll	1,208	1,944
Midway Islands	1,309	2,106
Kure Atoll	1,367	2,200
Other Pacific locations:		
Apra Harbor, Guam	3,806	6,124
Auckland, New Zealand	4,393	7,068
Hong Kong	5,541	8,915
Johnston Atoll	820	1,319
Kingman Reef	1,073	1,726
Kiritimati (Christmas Island), Kiribati	1,344	2,163
Majuro, Marshall Islands	2,271	3,654
Manila, Philippines	5,293	8,516
Nuku Hiva, Marquesas Islands	2,400	3,864
Pago Pago, American Samoa	2,606	4,193
Palmyra Atoll	1,101	1,772
Papeete, Tahiti	2,741	4,410
Suva, Fiji	3,159	5,083
Sydney (Port Jackson), Australia	5,070	8,158
Tokyo, Japan	3,847	6,190
Wake Island	2,294	3,691
North and South American locations:		
Anchorage, Alaska	2,781	4,475
Cape Horn, Chile	7,457	11,998

Continued on next page.

Table 137.-- GREAT CIRCLE DISTANCES BETWEEN SPECIFIED PLACES -- Con.

Place	Statute miles	Kilometers
DISTANCES FROM HONOLULU INT. AIRPORT--Con.		
North and South American locations, con.:		
Chicago, Illinois	4,179	6,724
Cristobal, Canal Zone	5,214	8,389
Los Angeles, California	2,557	4,114
Miami, Florida	4,856	7,813
New York, New York	4,959	7,979
Portland, Oregon	2,595	4,175
San Diego, California	2,610	4,199
San Francisco, California	2,397	3,857
Seattle, Washington	2,679	4,311
Vancouver, B.C.	2,709	4,359
Tijuana, Mexico	2,616	4,209
Washington, D.C.	4,829	7,770
London, England	7,226	11,627
Bombay, India	8,010	12,888
Ghanzi, Botswana 1/	12,417	19,979
Equator, due south of Honolulu	1,470	2,367
North Pole	4,740	7,631
OTHER DISTANCES		
Hilo to --		
Los Angeles, California	2,447	3,937
San Francisco, California	2,315	3,725
Kure Atoll to --		
Cape Kumukahi, Puna, Hawaii 2/	1,523	2,451
Log Point, Elliot Key, Florida 3/	5,852	9,416
Tokyo, Japan	2,486	4,000
West Quoddy Head, Maine	5,788	9,313

1/ Ghanzi, Botswana, is Honolulu's antipode, that is, the point precisely opposite to it on the globe.

2/ Cape Kumukahi and Kure Atoll are the points farthest apart in the Hawaiian Archipelago and State of Hawaii.

3/ Log Point and Kure Atoll are the points farthest apart in the fifty states.

Source: U. S. Department of the Interior, Geological Survey, Elevations and Distances in the United States (1973), pp. 22-23, and distance computations prepared for the Department of Planning and Economic Development.

Table 138.-- TIME DIFFERENTIALS BETWEEN HONOLULU AND SELECTED CITIES: 1982-1987

City	June		December	
	Day	Hour	Day	Hour
Honolulu, Hawaii	Same	12:00 N	Same	12:00 N
Papeete, Tahiti	Same	12:00 N	Same	12:00 N
Anchorage, Alaska	Same	2:00 PM	Same	1:00 PM
San Francisco, California	Same	3:00 PM	Same	2:00 PM
Denver, Colorado	Same	4:00 PM	Same	3:00 PM
Mexico City, Mexico	Same	4:00 PM	Same	4:00 PM
Houston, Texas	Same	5:00 PM	Same	4:00 PM
Chicago, Illinois	Same	5:00 PM	Same	4:00 PM
Atlanta, Georgia	Same	6:00 PM	Same	5:00 PM
Toronto, Canada	Same	6:00 PM	Same	5:00 PM
Washington, D.C.	Same	6:00 PM	Same	5:00 PM
New York, N.Y.	Same	6:00 PM	Same	5:00 PM
Rio de Janeiro, Brazil	Same	7:00 PM	Same	7:00 PM
London, United Kingdom	Same	11:00 PM	Same	10:00 PM
Bonn, West Germany	Same	12:00 Mid.	Same	11:00 PM
Vienna, Austria	Same	11:00 PM	Same	11:00 PM
Cairo, Egypt	Same	12:00 Mid.	Same	12:00 Mid.
Moscow, Soviet Union	Next	2:00 AM	Next	1:00 AM
Bombay, India	Next	3:30 AM	Next	3:30 AM
Singapore, Singapore	Next	6:00 AM	Next	6:00 AM
Hong Kong, Hong Kong	Next	7:00 AM	Next	6:00 AM
Manila, Philippines	Next	6:00 AM	Next	6:00 AM
Shanghai, China	Next	7:00 AM	Next	6:00 AM
Seoul, South Korea	Next	7:00 AM	Next	7:00 AM
Tokyo, Japan	Next	7:00 AM	Next	7:00 AM
Agana, Guam	Next	9:00 AM	Next	8:00 AM
Sydney, Australia	Next	8:00 AM	Next	9:00 AM
Auckland, New Zealand	Next	10:00 AM	Next	11:00 AM
Suva, Fiji	Next	10:00 AM	Next	10:00 AM
Pago Pago, American Samoa	Same	11:00 AM	Same	11:00 AM

Source: Doris Chase Doane, Time Changes in the USA, Rev. Ed. (1985) and Time Changes in the World, Rev. Ed. (1982); The World Almanac 1988, p. 224.

Table 139.-- LATITUDES AND LONGITUDES OF SELECTED PLACES

Island and place	Latitude (North)	Longitude (West)
Hawaii:		
Hilo (General Lyman Field)	19°43'	155°04'
Cape Kumukahi	19°31'	154°49'
Ka Lae	18°55'	155°41'
Keahole Point	19°44'	156°04'
Upolu Point	20°16'	155°51'
Maui:		
Wailuku	20°53'	156°30'
Kahului (Airport)	20°54'	156°26'
Hana	20°45'	155°59'
Cape Hanamanioa	20°35'	156°25'
Lahaina	20°52'	156°41'
Kahoolawe:		
Puu Moaulanui	20°34'	156°34'
Lanai:		
Airport	20°48'	156°57'
Molokai:		
Kaunakakai	21°05'	157°02'
Laau Point	21°06'	157°19'
Cape Halawa	21°10'	156°43'
Oahu:		
Honolulu: International Airport	21°20'	157°55'
Aloha Tower	21°19'	157°52'
Kaena Point	21°35'	158°17'
Kahuku Point	21°43'	157°59'
Makapuu Point	21°19'	157°39'
Diamond Head	21°16'	157°49'
Kauai:		
Lihue (Kauai Airport)	21°59'	159°21'
Mana	22°02'	159°46'
Kilauea Point	22°14'	159°24'
Niihau:		
Puuwai	21°54'	160°12'
Kure Atoll	28°25'	178°25'

Source: U.S. Board on Geographic Names, Gazetteer No. 24, Hawaiian Islands (1956); U.S. Department of Commerce, National Climatic Data Center, Local Climatological Data, Annual Summary with Comparative Data, 1984 for Hilo, Kahului, Honolulu, and Lihue; Bernice P. Bishop Museum, Geography and Map Division, records; Hawaii State Department of Accounting and General Services, Survey Division, records.

Table 140.-- WIDTHS AND DEPTHS OF CHANNELS

Channel 1/	Width 2/		Depth 3/	
	Statute miles	Kilometers	Feet	Meters
Alenuihaha (Hawaii-Maui)	29.6	47.6	6,810	2,076
Alalakeiki (Kahoolawe-Maui)	6.7	10.8	822	251
Kealaikahiki (Kahoolawe-Lanai)	17.8	28.6	1,086	331
Auau (Lanai-Maui)	9.5	15.3	252	77
Kalohi (Lanai-Molokai)	9.2	14.8	540	165
Pailolo (Maui-Molokai)	8.8	14.2	846	258
Kaiwi (Molokai-Oahu)	25.8	41.5	2,202	671
Kauai (Oahu-Kauai)	72.1	116.0	10,890	3,319
Kaulakahi (Kauai-Niihau)	17.2	27.7	3,570	1,088
Niihau-Kaula	21.5	34.6	5,364	1,635
Niihau-Nihoa	133.9	215.5	14,550	4,435
Nihoa-Necker I.	179.6	289.0	12,600	3,840
Necker I.-French Frigate Shoals	100.3	161.4	12,780	3,895
French Frigate Shoals-Gardner Pinnacles	137.0	220.5	11,448	3,489
Gardner Pinnacles-Maro Reef	155.5	250.3	12,300	3,749
Maro Reef-Laysan I.	65.9	106.1	8,280	2,524
Laysan I.-Lisianski I.	137.4	221.1	16,830	5,130
Lisianski I.-Pearl and Hermes Atoll	162.6	261.7	17,400	5,304
Pearl and Hermes Atoll-Midway Islands	86.9	139.9	15,840	4,828
Midway Islands-Kure Atoll	57.1	91.9	12,960	3,950

1/ Listed in geographic order, from east to west. The channels between major islands were measured between the following points:
Alenuihaha: Upolu Pt., Hawaii, to Puhilele Pt., Maui;
Alalakeiki: Lae o ka Ule, Kahoolawe, to Nukuele Pt., Maui;
Kealaikahiki: Makaalae, Kahoolawe, to Kamaiki Pt., Lanai;
Auau: Kikoa Pt., Lanai, to Lahaina, Maui;
Kalohi: Wahie Pt., Lanai, to Kamalo, Molokai;
Pailolo: Lipoa Pt., Maui, to Pohakuloa, Molokai;
Kaiwi: Ilio Pt., Molokai, to Makapuu Pt., Oahu;
Kauai: Kaena Pt., Oahu, to Kamilo Pt., Kauai;
Kaulakahi: Mana Pt., Kauai, to Kaunuopou, Niihau.

2/ Width measured in statute miles between designated points on National Ocean Survey and Coast and Geodetic Survey charts. Width in kilometers calculated from miles (1 mile = 1.60934 km.).

3/ Depths given are the deepest soundings noted at or near the line joining the two designated points, on National Ocean Survey and Coast and Geodetic Survey charts. Depths measured in fathoms and converted to feet and meters (1 fathom = 6 feet = 1.8288 meters).

Source: Compiled by Lee S. Motteler, Geography and Map Division, Bernice P. Bishop Museum, in November 1980.

Table 141.-- GENERAL COASTLINE AND TIDAL SHORELINE OF COUNTIES AND ISLANDS

County and island	General coastline 1/		Tidal shoreline 2/	
	Statute miles	Kilometers 3/	Statute miles	Kilometers 3/
State total	750	1,207	1,052	1,693
Counties:				
Hawaii	266	428	313	504
Maui, including Kalawao	210	338	343	552
Honolulu	137	220	234	377
Kauai	137	220	162	261
Islands: 4/				
Hawaii	266	428	313	504
Maui	120	193	149	240
Kahoolawe	29	47	36	58
Lanai	47	76	52	84
Molokai	88	142	106	171
Oahu	112	180	209	336
Kauai	90	145	110	177
Niihau	45	72	50	80
Kaula	2	3	2	3
Northwestern Hawaiian Islands 5/	25	40	25	40
Nihoa	3	5	3	5
Necker Island	2	3	2	3
French Frigate Shoals	6	10	6	10
Laysan Island	6	10	6	10
Lisianski Island	3	5	3	5
Kure Atoll	5	8	5	8

1/ Figures are lengths of general outline of seacoast. Data for the four islands of Maui County are not consistent with the reported county total.

2/ Shoreline of outer coast, offshore islands, bays, rivers, and creeks is included to the head of tidewater or to a point where tidal waters narrow to a width of 100 feet.

3/ Derived from data expressed in statute miles; independently rounded and accordingly may not add exactly to indicated totals and subtotals. 1 mi. = 1.609 km.

4/ Data are not available for five minor islands: Molokini, Lehua, Gardner Pinnacles, Maro Reef, and Pearl and Hermes Atoll.

5/ Excludes the Midway Islands, which are part of the Hawaiian Archipelago but not legally part of the State of Hawaii. Midway has a general coastline of 20 miles and a tidal shoreline of 33 miles.

Source: U.S. Department of Commerce, National Ocean Survey, The Coastline of the United States (1975) and records.

Table 142.-- LAND AND WATER AREA OF COUNTIES AND ISLANDS: 1982

[See maps on pages 6 and 7]

County or island	Square miles		
	Total	Land 2/	Inland water 3/
State total	6,470.8	6,425.2	45.6
Counties: 4/			
Hawaii	4,035.2	4,034.2	1.0
Maui	1,171.0	1,161.6	9.4
Kalawao	14.3	13.3	1.0
Honolulu 5/	620.5	596.3	24.2
Kauai 5/	629.8	619.8	10.0
Islands: 4/			
Hawaii	4,035.2	4,034.2	1.0
Maui 6/	734.5	728.6	5.9
Kahoolawe	45.9	45.0	0.9
Lanai	141.2	140.4	0.8
Molokai	263.7	260.9	2.8
Oahu	617.6	593.6	24.0
Kauai	558.2	549.4	8.8
Niihau 7/	71.1	70.0	1.1
Kaula	0.4	0.4	-
Northwestern Hawaiian Islands 8/....	2.910	2.690	0.220
Nihoa	0.238	0.238	-
Necker Island	0.105	0.105	-
French Frigate Shoals	0.081	0.081	-
Gardner Pinnacles	0.011	0.011	-
Maro Reef	Awash	Awash	Awash
Laysan Island	1.454	1.234	0.220
Lisianski Island	0.586	0.586	-
Pearl and Hermes Atoll	0.106	0.106	-
Kure Atoll	0.329	0.329	-

Continued on next page.

Table 142.-- LAND AND WATER AREA OF COUNTIES AND ISLANDS: 1982 -- Con.

County or island	Square kilometers 1/		Acres 1/	
	Total	Land 2/	Total	Land 2/
State total	16,759.3	16,641.2	4,141,312	4,112,128
Counties: 4/				
Hawaii	10,451.1	10,448.5	2,582,528	2,581,888
Maui	3,032.9	3,008.5	749,440	743,424
Kalawao	37.0	34.4	9,152	8,512
Honolulu 5/	1,607.1	1,544.4	397,120	381,632
Kauai 5/	1,631.2	1,605.3	403,072	396,672
Islands: 4/				
Hawaii	10,451.1	10,448.5	2,582,528	2,581,888
Maui 6/	1,902.3	1,887.1	470,080	466,304
Kahoolawe	118.9	116.5	29,376	28,800
Lanai	365.7	363.6	90,368	89,856
Molokai	683.0	675.7	168,768	166,976
Oahu	1,599.6	1,537.4	395,264	379,904
Kauai	1,445.7	1,422.9	357,248	351,616
Niihau 7/	184.1	181.3	45,504	44,800
Kaula	1.0	1.0	256	256
Northwestern Hawaiian Islands 8/	7.5	7.0	1,862	1,722
Nihoa	0.6	0.6	152	152
Necker Island	0.3	0.3	67	67
French Frigate Shoals	0.2	0.2	52	52
Gardner Pinnacles	0.0	0.0	7	7
Maro Reef	Awash	Awash	Awash	Awash
Laysan Island	3.8	3.2	931	790
Lisianski Island	1.5	1.5	375	375
Pearl and Hermes Atoll	0.3	0.3	68	68
Kure Atoll	0.9	0.9	211	211

1/ Areas in square kilometers and acres were calculated directly from the figures shown for square miles; these equivalents were independently rounded, and hence may not add exactly to the indicated totals and subtotals. 1 square mile = 640 acres = 2.58999 square kilometers.

2/ Dry land and land temporarily or partially covered by water, as marshland, swamps, etc.; streams and canals under one-eighth statute mile wide; and lakes, reservoirs, and ponds under 40 acres of area.

Continued on next page.

3/ Permanent inland water surface, such as lakes, reservoirs, and ponds having 40 acres or more of area; streams, sloughs, estuaries, and canals one-eighth statute mile or more in width; deeply indented embayments and sounds, and other coastal waters behind or sheltered by headlands or islands separated by less than 1 nautical mile of water, and islands having less than 40 acres of area.

4/ Because of rounding, island figures may not add to county figures.

5/ Revised to reflect inclusion of Kaula in the County of Kauai rather than in the City and County of Honolulu, as shown in Data Book 1987, table 157. Kaula was transferred to the County of Kauai by Act 245, S.L.H. 1988, approved June 9, 1988.

6/ Molokini, offshore of Maui, not measured; other sources give the area of Molokini as 18.6 acres (0.03 square miles or 0.075 square kilometers).

7/ Includes Lehua, elsewhere reported as 243 acres (0.38 square miles or 0.98 square kilometers).

8/ Exclusive of the Midway Islands, which are part of the Hawaiian Archipelago but not legally part of the State of Hawaii.

Source: Unpublished data supplied by the Geography Division, U.S. Bureau of the Census, May 5, 1983; cited in the Hawaii State Department of Planning and Economic Development, Remeasurements of the Area of Hawaii, 1982 (Statistical Memorandum 83-6, May 18, 1983).

Table 143.-- LAND AND WATER AREA WITHIN THE FISHERY CONSERVATION ZONE

[Land and water area within the 200 nautical mile Fishery Conservation Zone surrounding the Hawaiian Archipelago]

Category	Square nautical miles	Square statute miles	Square kilo-meters
Total	634,023	839,623	2,174,626
Land area	4,852	6,425	16,641
Water area	629,171	833,198	2,147,985

Source: Charles E. Harrington, Chief Geographer, Marine Surveys and Maps, National Ocean Survey, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, information supplied September 15, 1978.

Table 144.-- MAJOR AND MINOR ISLANDS IN THE HAWAIIAN ARCHIPELAGO

Classification	Number of islands		Land area (square miles)
	Total	Inhabited, 1980 1/	
All named islands	137	15	6,427.0
Major islands	8	7	6,419.4
Named minor islands 2/	129	8	7.6
Offshore of major islands	96	4	2.6
Northwestern Hawaiian Islands 3/	33	4	4.9
Part of State	28	3	2.9
Not part of State (Midway Islands)	5	1	2.0

1/ For populations, see present volume, table 4.
2/ For individual data, see DPED Report GN-6, pp. 3-7.
3/ The 33 islets are in 10 clusters.
Source: Hawaii State Department of Planning and Economic Development, Geographic Names Approved, Second Quarter 1969 (Report GN-6, July 8, 1969), p. 8; Data Book 1986, table 152.

Table 145.-- AREA AND DEPTH OF SELECTED CRATERS

Island and crater	Area (acres)	Maximum depth (feet)
Hawaii:		
Kilauea Caldera	2,319	476
Mokuaweoweo Crater 1/	2,221	572
Maui:		
Haleakala Crater 2/	12,575	3,028
Oahu:		
Diamond Head Crater	255	562
Koko Crater	133	968
Punchbowl Crater	62	140

1/ Data exclude North and South Pits.
2/ Data exclude Koolau and Kaupo Gaps.
Source: Measured from U.S. Geological Survey maps by Adele M. Carpenter, Land Use Division, DBED.

Table 146.-- ELEVATIONS OF MAJOR SUMMITS

[Elevation of the highest point on each island
and other important peaks]

Island and summit	Feet	Meters
Hawaii:		
Mauna Kea 1/	13,796	4,205
Mauna Loa 2/	13,679	4,169
Hualalai	8,271	2,521
Kaumu o Kaleihoohie	5,480	1,670
Kilauea (Uwekahuna)	4,093	1,248
Kilauea (Halemaumau Rim)	3,660	1,116
Kahoolawe:		
Puu Moaulanui	1,483	452
Puu Moaulaiki	1,434	437
Molokini	160	49
Maui:		
Haleakala (Red Hill)	10,023	3,055
Haleakala (Kaupo Gap)	8,201	2,500
Puu Kukui	5,788	1,764
Iao Needle	2,250	686
Lanai:		
Lanaihale	3,370	1,027
Molokai:		
Kamakou	4,961	1,512
Olokui	4,606	1,404
Kaunuohua	4,535	1,382
Kalaupapa Lookout	1,600	488
Mauna Loa (Kukui)	1,430	436
Oahu:		
Kaala	4,017	1,224
Puu Kalena	3,504	1,068
Konahuanui	3,150	960
Tantalus	2,013	614
Olomana	1,643	501
Koko Crater (Kohelepelepe)	1,208	368
Nuuanu Pali Lookout	1,186	361
Diamond Head	760	232
Koko Head	642	196
Punchbowl	500	152

Continued on next page.

Table 146.-- ELEVATIONS OF MAJOR SUMMITS -- Con.

Island and summit	Feet	Meters
Kauai:		
Kawaikini	5,243	1,598
Waialeale	5,148	1,569
Namolokama Mountain	4,421	1,348
Kalalau Lookout	4,120	1,256
Haupu	2,297	700
Sleeping Giant (Nonou)	1,241	378
Niihau:		
Paniau	1,281	390
Lehua	699	213
Kaula	550	168
Nihoa:		
Millers Peak	910	277
Necker Island:		
Summit Hill	277	84
French Frigate Shoals:		
La Perouse Pinnacles	135	41
Gardner Pinnacles	190	58
Maro Reef	Awash	Awash
Laysan Island	35	11
Lisianski Island	20	6
Pearl and Hermes Atoll	10	3
Midway Islands	12	4
Kure Atoll	20	6

1/ According to the 1987 Guinness Book of World Records (p. 96), "The world's tallest mountain measured from its submarine base (3,280 fathoms) in the Hawaiian Trough to peak is Mauna Kea ... with a combined height of 33,476 ft, of which 13,796 ft are above sea level."

2/ Guinness (p. 96) describes Mauna Loa as having "dimensions, but not height, [which] exceed those of Mt Everest .... The axes of its elliptical base, 16,322 ft below sea level, have been estimated at 74 mi and 53 mi."

Source: U.S. National Cartographic Information Center, data provided October 11, 1978; U.S. Geological Survey topographic maps; E. D. Baldwin, 1883 Molokini figure on Hawaiian Government Survey Reg. Map No. 1276; National Geodetic Survey 1969 figure for Kaala, provided by U.S. Geological Survey, Honolulu office, July 23, 1984; U.S.S. Tanager survey, 1923 (for Pearl and Hermes Atoll). Data compiled with assistance of Lee S. Motteler, Bernice P. Bishop Museum.

Table 147.-- MAJOR STREAMS, BY ISLANDS

Island	Feature or stream	Length or ave. discharge
Longest water feature (miles):		
Hawaii	Wailuku River	32.0
Maui	Kalialinui-Waiale Gulch	18.0
Kahoolawe	Ahupu Gulch	4.0
Lanai	Maunalei-Waialala Gulch	12.9
Molokai	Wailau-Pulena Stream	6.5
Oahu	Kaukonahua Stream (So. Fork)	33.0
Kauai	Waimea River-Poomau Stream	19.5
Niihau	Keanaulii-Puniopo Valley	5.9
Largest perennial stream (miles): 1/		
Hawaii	Wailuku River	22.7
Maui	Palikea Stream	7.8
Molokai	Wailau-Pulena Stream	6.5
Oahu	Kaukonahua Stream	30.0
Kauai	Waimea River	19.7
Streams with greatest average discharge (million gal./day):		
Hawaii	Wailuku River	185
Maui	Iao Stream	50
Molokai	Wailau Stream	30
Oahu	Waikele Stream	25
Kauai	Hanalei River	150

1/ Estimated on basis of drainage area rather than stream runoff. Other major streams include Wailoa River, Hawaii (1/2-mile long); Honokohau Stream (9.4 miles long) and Iao Stream (5), both on Maui; Halawa Stream (6.4), Waikolu Stream (4.7), and Pelekunu (2.3), all on Molokai; Waikele Stream (15.3), Kipapa Stream (12.8), Waiakakalaua Stream (11.8), Nuuanu Stream (4), and Ala Wai Canal (1.9), all on Oahu; and the Makaweli River (15.1), Wainiha River (13.8), Hanapepe River (13.3), and Wailua River (11.8), all on Kauai.

Source: Longest water feature from U.S. Geological Survey, records; other data from Hawaii State Department of Land and Natural Resources, Division of Water and Land Development, records.

Table 148.-- LAKES AND LAKE-LIKE WATERS, BY ISLANDS: 1988

Island and lake	Type	Elevation (feet)	Area 1/ (acres)	Maximum depth (feet)
Hawaii:				
Aimakapa	Coastal pool .	(SL)	15	(NA)
Green Lake	Lake	3	2	20
Lake Waiau 2/	Lake	13,020	2	10
Waiakea Pond	Tidal pond ...	(SL)	27	7
Maui:				
Kanaha Pond	Marsh	(SL)	41	< 3
Kealia Pond	Marsh	(SL)	500	(NA)
Waieleele	Pond	6,690	0.5	21
Molokai:				
Kauhako	Pool	(SL)	0.9	814
Kualapuu Reservoir ..	Reservoir	821	100	50
Meyer Lake	Impoundment ..	2,021	6-10	5
Oahu:				
Ho'omaluhia	Reservoir	202	90	90
Kaelepulu Pond	Lake	(SL)	198	(NA)
Kawainui Marsh	Marsh	(SL)	1,000	(NA)
Salt Lake	Lake	(SL)	7	2
Wahiawa Reservoir ...	Reservoir	842	302	85
Kauai:				
Nomilu Fishpond	Pond	(SL)	20	66
Waita Reservoir	Reservoir	241	424	23
Niihau:				
Halalii Lake	Playa	(SL)	841-865	(NA)
Halulu Lake	Playa	(SL)	182-371	(NA)
Laysan:				
Unnamed lagoon	Closed lagoon	(SL)	161	16

NA Not available.
SL Sea level.

1/ Ranges shown for Meyer Lake, Halalii Lake, and Halulu Lake reflect differences in estimates between sources.

2/ Highest lake in the State and third highest in the United States.

Continued on next page.

Table 148.-- LAKES AND LAKE-LIKE WATERS, BY ISLANDS: 1988 - Con.

Source: J.A. Maciolek, *Lakes and Lake-like Waters of the Hawaiian Archipelago* (Bernice P. Bishop Museum, Occasional Papers, Vol. XXV, No. 1, April 30, 1982); Hawaii State Department of Land and Natural Resources, Division of Water and Land Development, April 4, 1988; Hawaii State Department of Planning and Economic Development, *Resource Management Plan for Kawainui Marsh* (March 1983); William H. Meyer, U.S. Fish and Wildlife Service, transmittal letter (to DPED, Coastal Zone Management Program), for *Kealia Pond National Wildlife Refuge, Maui, Hawaii, Final EIS* (August 1981); Salt Lake planimeter measurement by Office of State Planning, 1988.

Table 149.-- MAJOR NAMED WATERFALLS, BY ISLANDS

Island	Waterfall	Height (feet)		Horizontal distance (feet)
		Sheer drop	Cascade	
Hawaii ..	Kaluahine	...	620	400
	Akaka	442	...	...
Maui	Honokohau	...	1,120	500
Molokai .	Kahiwa	...	1,750	1,000
	Papalaua	...	1,200	500
Oahu	Kaliuwaa (Sacred) 1/ .	80	1,520	3,000
Kauai ...	Waipoo (2 falls)	...	800	600
	Awini	...	480	500

1/ Sheer drop refers to northernmost fall of a cascade of six falls.

Source: U.S. Geological Survey, records; Hawaii State Department of Land and Natural Resources, Division of Water and Land Development, records.

Table 150.-- MISCELLANEOUS GEOGRAPHIC STATISTICS, BY ISLANDS

Island	Extreme length (miles)	Extreme width (miles)	Miles of sea cliffs with heights 1,000 ft. or more 1/	Miles from coast of most remote point	Percent of area within 5 miles of coast
The State ..	...	...	33	28.5	48.6
Hawaii	93	76	4	28.5	30.0
Maui	48	26	-	10.6	76.1
Kahoolawe	11	6	-	2.4	100.0
Lanai	18	13	1	5.2	100.0
Molokai	38	10	14	3.9	100.0
Oahu	44	30	-	10.6	79.0
Kauai	33	25	11	10.8	67.0
Niihau	18	6	3	2.4	100.0

Island	Percent of area with elevation --		Approximate mean altitude (feet)	Percent of area with slope --	
	Less than 500 feet	2,000 feet or more		Less than 10 percent	20 percent or more
The State ..	20.8	59.9	3,030	63.5	17.0
Hawaii	12.0	68.4	3,950	76.0	4.0
Maui	24.9	41.4	2,390	38.5	36.0
Kahoolawe	38.9	0	600	60.0	9.0
Lanai	24.8	6.3	1,140	61.0	16.0
Molokai	37.3	17.8	1,150	53.0	26.0
Oahu	45.3	4.6	860	42.5	45.5
Kauai	35.6	24.0	1,380	33.5	50.5
Niihau	78.2	0	530	68.0	12.5

1/ According to Lee S. Motteler, Geography and Map Division, Bernice P. Bishop Museum, the sea cliffs along the northeastern coast of Molokai between Umilehi Point and Puukaoku Point drop 3,250 feet at an average slope of 58 degrees. These cliffs have been described by the Guinness Book of World Records (1987 edition, p. 103) as "the highest sea cliffs yet pinpointed anywhere in the world."

Source: Hawaii State Department of Planning and Economic Development, Hawai'i, the Natural Environment (1974), p. 19; U.S. Geological Survey, Elevations and Distances in the United States (1978), pp. 4-5.

Table 151.-- VOLCANIC ERUPTIONS: 1969 TO 1988

[Complete through August 10, 1988. Four volcanoes have erupted in historical times: Haleakala, last active around 1790; Hualalai, last active in 1800-1801; and Kilauea and Mauna Loa, both active during the past decade and included in this table]

Volcano and date of outbreak	Repose period since previous eruption (months)	Duration (days)	Location 1/	Elevation (feet)	Area (square miles)	Volume (mil. cubic yards)
Mauna Loa:						
1975: July 5	301	<1	S	13,000	5.2	35.0
1984: March 25	104	22	S, ER	13,200-9,400	11±	230.0
Kilauea:						
1969: Feb. 22	4.0	6	ER	3,100-2,900	2.3	22.0
May 24	2.0	867	ER	3,150	19.3	242.0
1971: Aug. 14	-	<1	C	3,660-3,600	0.8	12.4
Sept. 24	-	5	C, SWR	3,740-2,730	1.5	10.5
1972: Feb. 4	4.3	455	ER	3,150	13.5	163.8
1973: May 5	-	<1	ER	3,340-3,250	0.1	1.6
Nov. 10	-	30	ER	3,250-2,900	0.4	3.7
Dec. 12	0.1	203	ER	3,150	3.1	39.3
1974: July 19	-	3	C, ER	3,600-3,520	1.2	9.0
Sept. 19	2.0	<1	C	3,680	0.4	14.0
Dec. 31	3.4	<1	C	3,600	2.9	19.6
1975: Nov. 29	11.0	<1	C	3,600-3,520	0.1	.3
1977: Sept. 13	21.5	18	ER	2,080-1,600	3.0	45.0
1979: Nov. 16	26.3	1	ER	3,270-3,200	0.1	.8
1982: April 30	29.5	<1	C	3,630	0.1	.26
Sept. 25	4.9	<1	C	3,620	0.3	3.9
1983: Jan. 3 2/	3.3	2,045	ER	2,560-2,120	24.0	1,070.0

1/ C, caldera; ER, east rift; S, summit; SWR, southwest rift.

2/ Still in progress, August 10, 1988. As of that time, there had been 48 separate episodes. These had destroyed 64 housing units and added about 70 acres to the area of the island.

Source: Gordon A. Macdonald and Douglass H. Hubbard, Volcanoes of the National Parks in Hawaii, 8th edition (Hawaii Natural History Association, 1982), pp. 10, 19, 34, and 58, as updated by the staff of the Hawaiian Volcano Observatory, August 10, 1988.

Table 152.-- EARTHQUAKES OF MAGNITUDE 5 OR GREATER: 1973 TO 1988

[Complete to August 9, 1988]

Date and time (HST)		Location	Magnitude (Richter Scale)
1973:	Apr. 26	Hawaii	6.2
	Oct. 9	Hawaii	4.8-5
1974:	Nov. 30	Hawaii	5.5-6
1975:	Jan. 2, 3:27 AM	Near Pahala, Hawaii	5.0
	Nov. 29, 3:35 AM	Puna, Hawaii	5.7
	Nov. 29, 4:47 AM	Puna, Hawaii	7.2
1976:	Feb. 20, 7:51 PM	Between Maui and Hawaii	5.1
1977:	Jan. 22, 12:36 PM	100 miles S. of Kauai	5.1
	Apr. 20, 6:49 PM	Hamakua, Hawaii	5.0
	Jun. 5, 11:42 PM	Puna, Hawaii	5.1
1979:	Mar. 29, 11:06 PM	40 miles S.W. of Oahu	5.5
	Sept. 21, 9:59 PM	Puna, Hawaii	5.5
1981:	Mar. 5, 4:09 AM	Molokai area	5.3
	Nov. 10, 3:02 AM	Kilauea, Hawaii	5.3
1982:	Jan. 21, 11:52 AM	Mauna Loa, Hawaii	5.5
	Jan. 21, 12:29 PM	Mauna Loa, Hawaii	5.5
	May 14, 6:26 AM	Off Kawaihae, Hawaii	5.0
1983:	Mar. 20, 5:18 PM	Off Kalapana, Hawaii	5.0
	Sept. 9, 6:30 AM	Off Kalapana, Hawaii	5.4
	Nov. 16, 6:13 AM	S.E. flank of Mauna Loa	6.7
1984:	Jun. 8, 5:34 PM	80 miles S. of Honolulu	5.3
1986:	Apr. 26, 7:19 AM	28 miles N.E. of Maui	5.1
1987:	Feb. 3, 4:22 PM	26 miles S. of Kahoolawe	5.0
1988:	March 24, 2:30 PM	30 miles S. of Kahoolawe	5.0
	March 27, 5:33 PM	30 miles S. of Kahoolawe	5.5
	June 7, 12:49 AM	S. flank of Kilauea	5.0
	July 3, 7:38 PM	Near Pahala	5.3

Source: Hawaii Institute of Geophysics, records; Hawaii Volcano Observatory Summaries; U.S. Geological Survey, National Earthquake Information Service. Data provided by Professor Augustine S. Furumoto, Hawaii Institute of Geophysics, University of Hawaii, August 9, 1988.

Table 153.-- EARTHQUAKES WITH HONOLULU INTENSITIES OF V OR GREATER: 1859 TO 1983

[Based on data for 113 earthquakes observed in Honolulu, from 1859 through 1983]

Date		Epicentral location	Magnitude (Richter scale)	Honolulu average intensity (Modified Mercalli Scale 1/)
1861:	Dec. 5 ..	Molokai-Lanai vic. (?) .	(NA)	Mid V
	Dec. 15 .	Molokai-Lanai vic. (?) .	(NA)	Lower V - mid V
1868:	Apr. 2 ..	SE coast of Hawaii	7.5	Upper IV - lower V
	Apr. 4 ..	Maui group vicinity (?)	(NA)	Lower V
1871:	Feb. 19 .	S coast of Lanai	7.0	Upper VI - lower VII
1895:	Dec. 8 ..	Oahu vicinity (?)	(NA)	Mid V
1926:	Mar. 19 .	N of Kohala, Hawaii	(NA)	Upper IV - lower V
1929:	Oct. 5 ..	W of Kona, Hawaii	6.5	Lower V
1938:	Jan. 22 .	N of Maui	6.8	Upper V - lower VI
1948:	June 28 .	S coast of Oahu	4.8	Mid VI
1964:	Oct. 11 .	Ka Lae, Hawaii	5.5	Upper IV - lower V
1973:	Apr. 26 .	Hamakua coast, Hawaii ..	6.2	Mid V
1981:	Mar. 5 ..	Kalohi Channel	5.0	Mid V

NA Not available.

1/ Modified Mercalli Scale of 1931, 1956 abridged version further simplified. This scale, which extends from I to XII, reads in part:

IV. Hanging objects swing. Vibration like passing of heavy trucks or sensation of a jolt. Standing autos rock. Windows, dishes, doors rattle. Crockery clashes. In the upper part of range wooden construction creaks.

V. Felt outdoors; direction estimated. Sleepers wakened. Liquids disturbed, some spilled. Small unstable objects displaced or upset. Doors, shutters, pictures swing. Pendulum clocks stop.

VI. Felt by all. Many frightened, run outdoors. Persons walk unsteadily. Windows, dishes, glassware broken. Knickknacks, books thrown off shelves, pictures off walls. Furniture moved, overturned. Weak plaster and masonry cracked. Small bells ring. Trees, bushes noticeably shaken.

VII. Difficulty in standing. Noticed by drivers of autos. Hanging objects quiver. Furniture broken. Damage to weak masonry. Weak chimneys broken at roof line. Fall of plaster, loose bricks, etc. Some cracks in ordinary masonry. Waves on ponds. Small slides on sand and gravel banks. Large bells ring. Irrigation ditches damaged.

Source: Doak C. Cox, "Earthquake Experience in Honolulu," The Hawaiian Journal of History, Vol. 21 (1987), pp. 98-109.

Table 154.-- TSUNAMIS WITH RUN-UP OF 2 METERS (6.6 FEET) OR MORE: 1946 TO 1988

[Complete to August 12, 1988]

Date	Maximum height in Hawaii		Deaths in Hawaii	Damage in Hawaii (dollars)
	Meters	Feet		
1946: April 1	17.0	55.8	159	26,000,000
1952: Nov. 4	6.1	20.0	-	1,000,000
1957: March 9	16.0	52.5	-	5,000,000
1960: May 22	10.5	34.5	61	23,000,000
1964: March 27	4.8	15.7	-	67,590
1975: Nov. 29	14.6	48.0	2	1,500,000

Source: George Pararas-Carayannis, Catalog of Tsunamis in the Hawaiian Islands (U.S. Coast and Geodetic Survey, May 1969); Harold G. Loomis, The Tsunami of November 29, 1975 in Hawaii (Hawaii Institute of Geophysics, December 1975), pp. 1 and 10; D.C. Cox and J. Morgan, Local Tsunamis and Possible Local Tsunamis in Hawaii (Hawaii Institute of Geophysics, Report HIG 77-14, November 1977); Doak C. Cox, Tsunami Casualties and Mortality in Hawaii (University of Hawaii, Environmental Center, June 1987), p. 39; Hawaii Institute of Geophysics, records.

Table 155.-- MAJOR DAMS: 1988

Name	Location	Height (ft.)	Length (ft.)	Volume of water impounded (acre ft.)
Wahiawa Dam ...	Wahiawa, Oahu	98	460	7,671
Waita	Koloa, Kauai	28	3,250	6,500
Kualapuu	Kualapuu, Molokai .	58	7,100	4,265
Alexander Dam .	Kalaheo, Kauai	119	600	2,500
Ho'omaluhia Dam	Luluku, Oahu	132	2,200	2,500
Nuuanu No. 4 ..	Honolulu, Oahu	73	1,730	1,420

Source: Hawaii State Department of Land and Natural Resources, Division of Water and Land Development, records.

Table 156.-- WATER USE, BY TYPE, BY ISLANDS: 1985

[Million gallons per day]

Use	State total	Hawaii	Maui	Lanai	Molo-kai	Oahu	Kauai	Niihau
Total	1,405.14	165.80	471.96	2.99	12.76	401.56	349.53	0.54
Ground water	649.43	72.89	149.72	2.99	5.31	358.14	59.84	0.54
Domestic	182.81	15.71	14.09	0.41	1.32	140.53	10.48	0.27
Agricultural ..	333.35	0.30	135.04	2.58	3.99	144.62	46.55	0.27
Industrial	16.19	5.26	0.59	-	-	10.03	0.31	-
Thermoelectric	86.04	51.62	-	-	-	34.42	-	-
Commercial	31.04	-	-	-	-	28.54	2.50	-
Surface water ...	755.71	92.91	322.24	-	7.45	43.42	289.69	-
Domestic	16.96	9.00	7.56	-	0.07	-	0.33	-
Agricultural ..	567.86	46.12	310.26	-	7.38	43.42	160.68	-
Industrial	2.70	-	-	-	-	-	2.70	-
Thermoelectric	3.80	-	-	-	-	-	3.80	-
Hydroelectric .	164.39	37.79	4.42	-	-	-	122.18	-

Source: Data compiled by the U.S. Geological Survey and provided by the Hawaii State Department of Land and Natural Resources, Division of Water and Land Development.

Table 157.-- WATER SERVICES AND CONSUMPTION, FOR COUNTY WATERWORKS: 1983 TO 1987

Subject and geographic area	1983	1984	1985	1986	1987
NUMBER OF SERVICES, JUNE 30					
State total	181,980	185,044	188,271	192,261	197,188
City and County of Honolulu	127,540	129,080	130,884	132,775	135,418
Honolulu 1/	58,173	58,462	58,801	59,237	59,590
Rest of Oāhu	69,367	70,618	72,083	73,538	75,828
Hawaii County	24,218	24,834	25,315	26,031	26,939
Kauai County	11,049	11,501	11,872	12,360	12,799
Maui County	19,173	19,629	20,200	21,095	22,032
Maui	18,007	18,413	18,964	19,807	20,708
Molokai	1,166	1,216	1,236	1,288	1,324
CONSUMPTION 2/ (MILLION GALLONS)					
State total	59,724	63,670	65,298	61,432	63,186
City and County of Honolulu	44,535	47,389	48,308	44,125	44,839
Honolulu 1/	25,658	26,636	27,218	24,454	24,857
Rest of Oāhu	18,877	20,753	21,090	19,671	19,982
Hawaii County	5,066	5,409	5,666	6,039	6,503
Kauai County	3,240	3,492	3,531	3,667	3,472
Maui County	6,883	7,380	7,793	7,601	8,372
Maui	6,592	7,073	7,493	7,314	8,068
Molokai	292	307	300	287	304

1/ Maunalua to Moanalua.

2/ Year ended June 30.

Source: Data compiled by Hawaii State Department of Business and Economic Development from Honolulu Board of Water Supply, Hawaii County Department of Water Supply, Kauai Department of Water, and Maui Department of Water Supply.

Table 158.-- POLLUTION ABATEMENT COSTS AND EXPENDITURES: 1984 AND 1985

[Millions of dollars. Statistics cover manufacturing establishments with 20 employees or more]

Subject	1984	1985
Total pollution abatement capital expenditures .	6.8	4.9
Gross annual cost of pollution abatement	10.8	13.3
Payments to government units	0.8	0.6
Operating costs, total	10.0	12.6
Cost recovered through abatement activities	0.6	0.4
Operating costs by form of pollutants abated:		
Air	2.3	3.7
Water	5.1	5.3
Solid waste, hazardous	0.3	0.2
Solid waste, non-hazardous	2.3	3.4
Operating costs by kind of cost:		
Depreciation	1.6	2.0
Labor	2.4	2.9
Materials and supplies	3.3	4.1
Services, equipment leasing, and other costs .	2.7	3.6

Source: U.S. Bureau of the Census, "Pollution Abatement Costs and Expenditures, 1984," Current Industrial Reports, MA-200(84)-1 (May 1986), pp. 16, 34, and 49; "Pollution Abatement Costs and Expenditures, 1985," Current Industrial Reports, MA-200(85)-1 (April 1987), pp. 18, 37, and 52.

Table 159.-- WATER QUALITY AT SPECIFIED PUBLIC BEACHES: 1984 TO 1987

Island and beach	Number of samples, 1987	Fecal coliform density 1/ (geometric mean, MPN/100 ml)			
		1984	1985	1986	1987
Hawaii (Hilo Shoreline Area):					
Exit of Ice Pond	12	15.6	78.2	15.1	19.4
Leileiwi Beach Park	12	109.7	182.1	116.0	89.7
Onekahakaha	12	5.6	8.8	7.4	15.2
Puhi Bay No. 3	12	12.9	286.1	48.8	22.7
Hawaii (Kona Shoreline Area):					
Hapuna Beach	11	5.3	3.9	3.6	3.1
Kahaluu Beach	11	2.6	2.8	2.8	3.2
Kealakekua Bay (curio stand)	11	3.3	4.6	3.9	3.6
Kealakekua Bay (canoe landing) ...	11	4.4	3.9	4.7	3.6
Magic Sands Beach	11	5.4	4.7	2.3	3.8
Puako Beach Lots (middle)	11	9.5	11.6	4.5	14.5
Puako Beach Lots (south end)	11	46.2	20.6	14.1	20.4
Spencer Beach Park	11	9.8	6.7	7.6	3.1
Maui:					
Hukilau Hotel shoreline	3	3.0	7.4	3.7	4.0
Oahu:					
Ala Moana Park (ewa end)	23	5.7	6.7	3.6	6.3
Ala Moana Park (center)	12	2.7	3.3	2.5	2.2
Ala Moana Park (diamond head)	11	3.1	7.9	3.8	3.4
Elks Club Beach	11	5.4	6.2	2.3	2.1
Ewa Beach	11	4.8	5.1	5.7	2.8
Ft. DeRussy Beach	11	6.8	5.0	4.6	3.6
Gray's Beach	22	5.4	7.3	6.2	4.7
Hanauma Bay	12	9.5	17.7	5.4	17.7
Kahana Park Beach	12	58.2	54.1	23.1	23.9
Kahanamoku Beach	9	2.4	3.7	3.2	3.1
Kahanamoku Lagoon (diamond head) .	22	16.8	77.0	12.1	15.4
Kailua Bay outfall shoreline	11	3.8	2.8	3.2	2.0
Kailua Beach Park	12	2.5	5.0	3.9	3.8
Kokokahi Pier	12	12.1	114.5	40.6	19.5
Kuhio Beach	11	8.4	22.5	7.8	35.5
Public Bath Beach	22	3.3	4.8	4.0	4.0
Tavern Beach	11	6.1	9.1	4.6	4.2
Sand Island, Pt. No. 3	12	2.3	4.2	2.1	2.4

Continued on next page.

Table 159.-- WATER QUALITY AT SPECIFIED PUBLIC BEACHES: 1984 TO 1987 - Con.

Island and beach	Number of samples, 1987	Fecal coliform density 1/ (geometric mean, MPN/100 ml)			
		1984	1985	1986	1987
Kauai:					
Brennecke Beach	11	2.5	2.0	2.0	2.2
Hanalei Bay Landing	5	42.8	51.2	76.9	7.0
Poipu Beach	11	4.4	2.0	2.0	4.1

MPN Most probable number.

1/ The geometric mean standard for fecal coliform density is 200 MPN per 100 ml.

Source: Hawaii State Department of Health, Pollution Investigation and Enforcement Branch, data supplied April 12, 1988.

Table 160.-- LITTER ALONG OAHU HIGHWAYS: 1978 TO 1988

Measure	1978	1979	1981	1985	1988
Visible litter items per mile	2,135	1,381	1,672	1,038	892
Visible beer/soft drink containers per mile	292	144	80	49	26
Indiscriminate dumps per 1,000 miles of driving	(NA)	8.2	15.7	19.6	14.1
Abandoned vehicles per 1,000 miles of driving	(NA)	4.9	23.6	57.4	6.8

NA Not available.

Source: Daniel B. Syrek, Hawaii Litter: 1988 (Sacramento: The Institute for Applied Research, for the Hawaii State Department of Health, Litter Control Office, May 13, 1988).

Table 161.-- REFUSE AND SEWAGE STATISTICS FOR OAHU: 1980 TO 1987

[Fiscal years]

Year	Tons of refuse delivered 1/			Sewage treated 2/ (millions of gallons)
	Total	City and County refuse vehicles	Other vehicles	
1980	686,438	221,774	464,664	36,885
1981	708,164	258,600	449,634	35,945
1982	669,120	244,826	424,294	34,830
1983	645,889	244,812	401,077	37,395
1984	707,473	235,767	471,706	38,283
1985	655,790	216,685	439,105	37,817
1986	729,611	252,081	477,530	37,608
1987	724,448	254,699	469,749	38,199

Year	Sewage pumped 2/ (millions of gallons)	Miles of sewers 2/	City and County pump stations	City and County treatment plants
1980	45,165	1,592	47	19
1981	43,744	1,623	48	19
1982	44,687	1,646	50	21
1983	48,442	1,670	52	20
1984	48,320	1,691	51	18
1985	49,361	1,711	51	17
1986	48,559	1,736	55	17
1987	49,542	1,752	57	17

1/ Excludes small landfill controlled by armed forces.

2/ Data limited to system maintained by the City and County of Honolulu Public Works Department.

Source: City and County of Honolulu, *Departmental and Agency Reports* (annual), and City Refuse Division, records.

Table 162.-- AIR QUALITY IN DOWNTOWN HONOLULU: 1977 TO 1987

[Annual arithmetic means, in micrograms per cubic meter, for total suspended particulates and sulfur oxides. Sampling is conducted about 46 feet above ground on the roof of the State Health Department building, 1250 Punchbowl Street, Honolulu, Hawaii]

Year	Particulates	Sulfur oxides	Year	Particulates	Sulfur oxides
1977	31	17	1985	24	<5
1978	29	18	1986	25	<5
1979	32	22	1987	26	<5
1980	37	18			
1981	40	19			
1982	29	11	Standards: 1/		
1983	26	<5	Primary	75	80
1984	25	<5	Secondary	60	...

1/ Primary and secondary national ambient air quality standards have been promulgated by the Federal government. Primary standards are designed to prevent adverse effects on public health, while secondary standards are designed to prevent adverse effects on public welfare, including the effects on comfort, visibility, vegetation, animals, aesthetic values, and soiling and deterioration of materials.

Source: Hawaii State Department of Health, Pollution Investigation and Enforcement Branch, data supplied April 12, 1988.

Table 163.-- AIR QUALITY AT SPECIFIED LOCATIONS: 1987

[24-hour sampling, in micrograms per cubic meter]

Sampling station	Total suspended particulates			Sulfur dioxide		
	Annual range		Arithmetic average	Annual range		Arithmetic average
	Minimum	Maximum		Minimum	Maximum	
Oahu:						
Barbers Point 1/	10	40	22	< 5	13	< 5
Downtown Honolulu	14	59	26	< 5	11	< 5
Liliha	20	59	32	...	...	...
Pearl City	20	61	34	...	...	...
Waimanalo	13	45	27	...	...	...
Maui:						
Kihei 1/	11	107	28	...	...	...
Lahaina 2/	8	19	15	...	...	...
Kauai:						
Lihue 1/	12	38	20	...	...	...

1/ Particulate data from PM_{10} samplers (measuring inhalable particulates of less than 10 micrograms).

2/ Site established in June, 1987. Sampling with PM_{10} sampler.

Source: Hawaii State Department of Health, Pollution Investigation and Enforcement Branch, data supplied April 12, 1988.

Table 164.-- SOURCES OF AIR POLLUTANT EMISSIONS, BY COUNTIES: 1980

[Percent distributions for the sums of weights of sulfur oxides, particulate matter, carbon monoxide, hydrocarbons, and nitrogen oxide emissions]

Source	State total	Hawaii	Honolulu	Kauai	Maui
All sources	100.0	100.0	100.0	100.0	100.0
Transportation	43.0	38.1	47.4	40.6	35.8
Motor vehicles	40.1	36.2	43.9	35.7	33.1
Aircraft	2.3	1.1	2.9	2.3	1.6
Vessels	0.6	0.8	0.6	2.6	1.1
Fuel combustion in stationary sources	29.7	34.9	26.7	32.2	35.3
Steam electric	23.1	19.8	24.6	18.5	22.4
Gas utilities	0.1	(N)	0.1	(N)	(N)
Agricultural fuel	6.5	15.1	2.0	13.7	12.9
Industrial process losses ..	14.6	7.7	20.3	3.2	3.5
Refinery	4.8	(N)	6.5	(N)	(N)
Petroleum storage	0.7	1.1	0.8	(N)	0.5
Metalurgical	0.1	(N)	0.1	(N)	(N)
Mineral products	6.9	3.9	10.8	0.9	1.1
Off-highway const., farms and industries	2.1	2.7	2.1	2.3	1.9
Municipal incinerator	0.9	(N)	1.3	(N)	(N)
Agricultural burning	11.7	19.3	4.3	24.2	25.4

N Less than 0.05 percent.

Source: Hawaii State Department of Health, Environmental Permits Branch, information provided April 12, 1988.

Table 165.-- NOISE LEVELS DURING DAYLIGHT HOURS IN SPECIFIED NEIGHBORHOODS ON OAHU: 1981-1982

[Noise levels, in decibels, exceeded 10, 50, and 90 percent of the time]

Neighborhood	Manual sampling			Automatic sampling		
	10	50	90	10	50	90
Aina Haina	45.6	42.1	39.5	53.5	46.2	43.2
Aina Koa	48.1	43.1	40.1	52.9	45.8	42.5
Downtown	57	55	54	60	57	55
Hawaii Kai	46.5	41.6	38.9	53.5	46.9	42.9
Kahala	48.0	44.5	42.4	-	-	-
Kaimuki	51.8	44.6	41.7	57.2	47.6	43.3
Kalihi	53.5	49.6	47.4	-	-	-
Kapahulu	47.2	45.0	42.0	-	-	-
Kapalama-Liliha	46.4	45.1	42.5	-	-	-
Kuliouou	48.6	45.9	43.4	52.5	47.9	45.4
Liliha	46	45	43	-	-	-
Makiki	52.7	46.9	45.3	56.5	50.5	48.6
Manoa	45.4	42.6	40.7	51.5	46.0	43.4
Moiliili	53.7	50.2	46.9	60.0	53.4	48.9
Nuuanu	46.6	43.6	40.8	-	-	-
Palolo	49.3	44.6	41.6	65.0	52.4	45.4
Pawaa	59.8	57.1	55.2	60.8	57.1	54.7
Salt Lake	56	52	49	-	56	51
Waikiki	57.8	55.4	54.1	61.6	57.5	55.3
Waialae Iki ...	46.4	43.1	40.6	54.6	44.8	41.7
Aiea	58	54	52	59	56	54
Halawa	52	46	44	55	50	47
Hauula	53	48	45	56	51	47
Kailua	49.2	45.5	42.9	54.9	49.6	45.2
Kaneohe	43.8	40.9	38.9	49.7	43.5	40.9
Mililani	44	37	34	53	46	41
Nanakuli	54	50	47	58	52	48
Pearl City	51	47	45	55	50	48
Wahiawa	47.1	44.7	42.4	51.8	47.3	43.9
Waimanalo	53	50	48	55	51	49
Waipahu	54.1	50.5	47.4	58.8	53.6	50.4

Source: Hawaii State Department of Health, Environmental Protection and Health Services Division, Noise and Radiation Branch, records.

Table 166.-- TEMPERATURES AND PRECIPITATION FOR SELECTED PLACES

Island and station	Ground elevation (feet)	Average temperature (°F.)		Extreme temperature of record (°F.)		Average annual precipitation (inches)
		Coolest month	Warmest month	Lowest	Highest	
Hawaii:						
Hilo Airport	30	71.2	75.9	53	94	129
Hawaii Volcanoes Nat. Park Hdq.	3,970	57.6	63.2	37	85	101
Naalehu	675	70.2	75.2	55	90	47
Kailua	30	72.1	77.3	54	93	25
Puako 1/	5	73.1	79.8	52	98	10
Waimea (Kamuela)	2,670	61.3	66.8	34	90	31
Honokaa	1,070	67.6	75.5	(NA)	(NA)	86
Mauna Kea summit 2/	13,796	31.3	42.5	11	66	20
Maui:						
Hana	120	71.3	76.8	50	90	69
Haleakala summit	10,025	42.6	50.0	14	73	44
Kihei 3/	85	70.9	78.4	49	98	13
Kahului Airport	40	71.5	79.2	48	96	19
Lahaina	45	71.5	78.0	52	93	15
Molokai:						
Kaunakakai	10	(NA)	(NA)	(NA)	(NA)	14
Molokai Airport	450	70.2	77.6	48	90	27
Lanai:						
Lanai City	1,620	65.8	72.8	46	88	37
Oahu:						
Honolulu International Airport	10	72.6	81.0	53	94	23
Waikiki (Honolulu Zoo)	10	71.9	80.6	51	93	25
Manoa (Lyon Arboretum)	500	69.4	75.2	(NA)	(NA)	158
Kaneohe MCAS	10	72.9	79.1	58	90	40

Continued on next page.

Table 166.-- TEMPERATURES AND PRECIPITATION FOR SELECTED PLACES -- Con.

Island and station	Ground elevation (feet)	Average temperature (°F.)		Extreme temperature of record (°F.)		Average annual precipitation (inches)
		Coolest month	Warmest month	Lowest	Highest	
Oahu (con.):						
Kahuku	25	71.6	78.8	49	95	40
Wheeler AFB	845	68.2	75.5	52	89	49
Waianae	10	72.1	79.7	45	96	20
Kauai:						
Kilauea (town)	315	68.7	75.6	49	94	68
Lihue Airport	100	71.2	79.1	50	90	44
Poipu (Makahuena Pt.)	50	72.4	79.4	50	93	35
Kokee (Kanalohuluhulu)	3,600	54.9	65.5	31	83	70
Waialeale	5,075	(NA)	(NA)	(NA)	(NA)	444
Northwestern Hawaiian Islands:						
Midway	10	65.0	78.6	52	89	44

NA Not available.
1/ Temperature data are for Mahukona.
2/ Based on incomplete and non-continuous data for 1966-1972. Precipitation estimated.
3/ Temperature data refer to Puunene Airport.
Source: Hawaii State Department of Land and Natural Resources, Division of Water and Land Development, data supplied September 3, 1988.

Table 167.-- CLIMATIC NORMALS, MEANS, AND EXTREMES FOR HILO, KAHULUI, HONOLULU, AND LIHUE AIRPORTS

Subject	Hilo	Kahului	Honolulu	Lihue
Normal temperatures (°F.):				
Daily maximum	81.2	83.8	84.2	81.1
Daily minimum	65.9	67.2	69.7	69.3
Monthly: Coolest month	71.2	71.5	72.6	71.3
Warmest month	75.9	79.2	81.0	79.1
Annual	73.6	75.5	77.0	75.2
Extreme temperatures (°F.):				
Record highest	94	96	94	90
Record lowest	53	48	53	50
Normal degree days, base 65°F.:				
Heating	-	-	-	-
Cooling	3,134	3,851	4,389	3,758
Precipitation (inches):				
Normal	128.15	19.85	23.47	44.02
Maximum monthly	50.82	14.46	20.79	22.91
Minimum monthly	0.28	0.00	T	T
Relative humidity (percent):				
8 A.M.	80	74	72	78
2 P.M.	68	58	56	66
Wind speed (m.p.h.):				
Mean	7.1	12.8	11.5	12.1
Fastest observation, 1 minute 1/	35	44	46	65
Percent of possible sunshine	41	68	68	56
Mean number of days:				
Clear	35.9	130.9	87.9	53.7
Partly cloudy	129.1	144.1	179.6	180.6
Cloudy	200.2	90.2	97.7	130.9
Precipitation .01 inch or more	278.2	97.8	99.8	201.0

T Trace amount.

1/ Kahului figure refers to fastest mile.

Source: U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Climatic Data Center, Local Climatological Data, Annual Summary with Comparative Data, 1987 for Hilo, Kahului, Honolulu, and Lihue.

Table 168.-- MONTHLY AND ANNUAL CLIMATIC DATA FOR HONOLULU INTERNATIONAL AIRPORT

Month	Normal temperature (°F)			Extreme temperature (°F)		Precipitation (inches)			
	Daily maximum	Daily minimum	Monthly	Record highest	Record lowest	Normal total	Maximum monthly	Minimum monthly	Maximum in 24 hours
January ...	79.9	65.3	72.6	87	53	3.79	14.74	0.18	6.72
February ..	80.4	65.3	72.9	88	53	2.72	13.68	0.06	6.88
March	81.4	67.3	74.4	88	55	3.48	20.79	0.01	17.07
April	82.7	68.7	75.7	89	57	1.49	8.92	0.01	4.21
May	84.8	70.2	77.5	92	60	1.21	7.23	0.05	3.44
June	86.2	71.9	79.1	92	65	0.49	2.46	T	2.28
July	87.1	73.1	80.1	92	67	0.54	2.01	0.03	1.38
August	88.3	73.6	81.0	93	67	0.60	3.08	T	2.35
September .	88.2	72.9	80.6	94	66	0.62	2.74	0.05	1.40
October ...	86.7	72.2	79.5	94	64	1.88	11.15	0.11	7.57
November ..	83.9	69.2	76.6	93	58	3.22	14.72	0.03	9.15
December ..	81.4	66.5	74.0	89	54	3.43	17.29	0.06	8.25
Annual	84.2	69.7	77.0	94	53	23.47	20.79	T	17.07

Continued on next page.

Table 168.-- MONTHLY AND ANNUAL CLIMATIC DATA FOR HONOLULU INTERNATIONAL AIRPORT -- Con.

Month	Relative humidity (percent)		Wind (miles/hour)		Percent of possible sun-shine	Mean sky cover, sunrise to sun-set 2/	Mean number of days		
							Sunrise to sunset		Precip. .01 inch or more
	8 A.M.	2 P.M.	Mean speed	Fastest obs. 1/			Clear	Cloudy	
Jan. ...	81	62	9.7	32	63	5.4	9.3	8.7	9.9
Feb. ...	79	59	10.3	30	64	5.6	7.7	8.0	9.2
Mar. ...	73	57	11.5	30	69	5.9	7.3	9.6	9.0
Apr. ...	70	56	12.0	31	67	6.2	5.3	10.5	9.2
May	67	54	12.0	30	69	6.0	6.4	9.5	7.3
June ...	67	53	12.7	26	71	5.6	5.9	6.7	5.9
July ...	68	52	13.4	28	74	5.3	7.4	5.4	7.5
Aug	68	53	13.0	28	75	5.3	7.9	6.3	6.4
Sept. ..	68	52	11.4	26	75	5.3	7.8	6.2	7.0
Oct. ...	69	55	10.7	25	68	5.7	7.4	8.5	8.9
Nov. ...	75	59	10.8	46	61	5.7	7.1	9.2	9.4
Dec. ...	79	61	10.5	29	59	5.5	8.4	9.3	10.2
Ann. ...	72	56	11.5	46	68	5.6	87.9	97.7	99.8

T Trace amount.

1/ Fastest observation, 1 minute, during 7-year period of record.

2/ Sky cover is expressed in a range of 0 for no clouds or obscuring phenomena to 10 for complete sky cover.

Source: U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Climatic Data Center, Local Climatological Data, Annual Summary With Comparative Data, Honolulu, 1987.

Table 169.-- CLIMATIC DATA FOR HONOLULU INTERNATIONAL AIRPORT: ANNUALLY, 1977 TO 1987

Year	Average temperature (°F)			Extreme temp. (°F)		Precipitation (inches)
	Annual	Coolest month	Warmest month	Lowest	Highest	
1977 ...	78.2	73.7	82.2	59	92	12.36
1978 ...	76.8	72.4	80.5	57	91	25.05
1979 ...	77.0	69.9	81.1	57	93	16.93
1980 ...	77.5	71.9	81.6	56	91	26.90
1981 ...	77.1	73.2	80.7	53	90	13.41
1982 ...	76.9	71.7	81.4	56	92	34.92
1983 ...	77.2	71.3	82.4	53	92	5.03
1984 ...	78.1	74.1	81.7	57	94	17.08
1985 ...	76.9	71.4	81.9	54	93	17.38
1986 ...	78.3	72.6	82.9	56	94	13.93
1987 ...	77.9	71.2	82.9	55	94	23.53

Year	Relative humidity (percent)		Wind speed (miles/hour)		Percent of possible sunshine	Days with precipitation .01 inch or more
	8 A.M.	2 P.M.	Annual average	Fastest mile 1/		
1977 ...	71	55	12.2	37	68	81
1978 ...	74	58	11.9	34	69	90
1979 ...	74	57	11.4	34	68	89
1980 ...	75	59	11.9	35	69	115
1981 ...	76	59	10.7	30	72	97
1982 ...	73	59	10.4	46	56	124
1983 ...	75	52	9.8	23	64	78
1984 ...	72	53	10.2	40	71	81
1985 ...	72	55	10.6	46	69	87
1986 ...	74	55	10.1	41	77	88
1987 ...	70	54	9.9	41	73	99

1/ Beginning in 1984, figures refer to peak gust.

Source: U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Climatic Data Center, Local Climatological Data, Annual Summary With Comparative Data, Honolulu, Hawaii (annual).

Table 170.-- CLIMATIC DATA FOR THE PERIOD OF RECORD

Subject	Date	Place	Magnitude
Long-term averages:			
Lowest monthly average minimum temp. (°F.) ..	February	Mauna Kea summit ..	23.5
Lowest monthly average daily temp. (°F.)	February	Mauna Kea summit ..	31.3
Highest monthly average maximum temp. (°F.) .	September	Kawaihae 1/	91.9
Highest monthly average daily temp. (°F.) ...	September	Kawaihae 1/	80.8
Lowest average annual rainfall (inches)	....	Kawaihae	8.7
Highest average annual rainfall (inches)	....	Waialeale	444
Single events:			
Lowest temperature of record (°F.)	Jan. 20, 1970 ...	Mauna Kea summit 2/	1.4
Highest temperature of record (°F.)	April 27, 1931 ..	Pahala	100
Lowest annual rainfall of record (inches) ...	1953	Kawaihae	0.2
Highest annual rainfall of record (inches) ..	1982	Waialeale	666
Highest wind speed of record (m.p.h.)	Nov. 23, 1982 ...	Makahuena Pt. 3/ ..	117

1/ Puukohola Heiau National Historical Site, Kawaihae, Hawaii.

2/ Recorded by Dr. Alfred Woodcock 60 meters inside the Mauna Kea summit cone, at 6:50 a.m. The rim at that time had a temperature of 39° F.

3/ Makahuena Point Coast Guard Station, Poipu, Kauai.

Source: Hawaii State Department of Land and Natural Resources, Division of Water and Land Development, data supplied September 3, 1988.

Table 171.-- RAINFALL AT SPECIFIED LOCATIONS: ANNUALLY, 1977 TO 1987

[In inches]

Year	Hawaii			Maui		
	Hilo Airport	Wai-mea 1/	Kona Village	Kahului Airport	Kihei	Lahaina
1977 ...	90.38	5.42	3.40	11.50	7.88	8.28
1978 ...	119.09	14.83	8.68	19.15	9.91	11.97
1979 ...	158.77	29.23	16.00	26.82	21.32	20.85
1980 ...	127.74	28.31	16.90	27.87	20.27	22.69
1981 ...	89.91	13.30	7.02	12.85	9.72	8.13
1982 ...	170.36	56.29	26.88	34.04	29.11	34.36
1983 ...	68.09	12.95	8.51	13.05	8.60	9.70
1984 ...	100.08	8.87	8.15	8.56	5.64	6.30
1985 ...	112.96	16.58	8.60	20.00	13.86	13.48
1986 ...	171.03	34.67	12.41	18.39	7.25	7.38
1987 ...	142.41	19.43	10.24	24.31	14.03	19.72

Year	Oahu			Kauai		
	Waikiki	Univ. of Hawaii	Nuuanu Res. 4	Koloa	Lihue Airport	Prince-ville
1977 ...	15.73	32.83	88.96	52.51	40.34	84.55
1978 ...	27.18	41.56	124.42	70.64	39.11	130.82
1979 ...	26.22	46.74	111.56	55.98	37.09	93.19
1980 ...	28.50	48.52	140.70	78.78	54.64	130.55
1981 ...	19.09	31.71	112.46	66.26	38.14	130.72
1982 ...	39.96	57.98	168.16	96.75	74.40	241.22
1983 ...	9.80	19.77	74.32	50.69	16.40	46.93
1984 ...	19.35	33.13	71.32	48.82	30.12	71.58
1985 ...	25.61	42.19	101.20	48.70	28.91	55.22
1986 ...	22.39	32.39	120.60	64.64	27.99	90.28
1987 ...	27.56	46.52	134.29	72.53	42.95	94.61

1/ Lalamilo Field Office.

Source: U.S. Department of Commerce, National Climatic Data Center, Climatological Data, Annual Summary, Hawaii and Pacific (annual); and Hawaii State Department of Land and Natural Resources, Division of Water and Land Development, records.

Table 172.-- MAJOR HURRICANES: 1950 TO 1988

[Complete to August 18, 1988]

Hurricane name	Date 1/	Islands most affected	Maximum winds ashore (m.p.h.)		Deaths	Property damage (mil. dol.)
			Sustained	Gusts		
Hiki	Aug. 15-17, 1950	Kauai	68	(NA)	1	0.2
Della	Sept. 4, 1957	French Frig. Shoals	82	109	-	Minor
Nina	Dec. 1-2, 1957	Kauai	92	(NA)	4	1.1
Dot	Aug. 7, 1959	Kauai	81	103	-	5.5+
Fico	July 18-20, 1978	Hawaii	(NA)	58+	-	0.2
Iwa	Nov. 24, 1982	Kauai, Oahu	65	117	1	234.0
Estelle ...	July 22, 1986	Maui, Hawaii	(NA)	55	-	2.0

NA Not available.

1/ Period affecting the Hawaiian Islands.

Source: Samuel L. Shaw, A History of Tropical Cyclones in the Central North Pacific and the Hawaiian Islands, 1832-1979 (U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Weather Service, September 1981); Hawaii State Department of Defense, Civil Defense Division, Catalogue of Natural and Man-Caused Incidents and Disasters in the Hawaiian Islands (December 1978); The Governor's Ad Hoc Committee on the Economic Impact of Hurricane Iwa, Hurricane Iwa's Economic Impact on Hawaii (January 1983); "The History of Hurricanes in Hawaii," Honolulu Star-Bulletin, July 18, 1983, p. A-5; "20-Foot Waves Hit Big Isle As Storm Brushes Coastline," Honolulu Advertiser, July 23, 1986, pp. A-1, A-2; "Hawaii Hurricanes," Honolulu Star-Bulletin, August 4, 1988, p. A-8; Hawaii State Department of Land and Natural Resources, Division of Water and Land Development, records.

Table 173.-- TRADE WINDS, HIGH SURF, AND TEMPERATURES IN HAWAIIAN WATERS, BY MONTHS

Month	Trade wind frequency 1/ (percent)	Expected days of strong trade winds 2/	Highest surf 3/ (average number of days)		Water temperature 4/ (°F.)	
			Flat or 1 foot	6 feet or more	Mean maximum	Mean minimum
Jan. ...	42	9	1	19	74.7	71.1
Feb. ...	55	7	1	16	75.6	70.3
March ..	61	10	1	12	76.5	71.8
April ..	74	10	3	7	77.7	73.0
May	86	7	8	3	79.5	74.7
June ...	91	7	15	-	81.1	77.7
July ...	95	10	16	-	81.1	78.3
Aug. ...	94	7	15	-	81.9	79.2
Sept. ..	83	4	10	2	81.9	78.4
Oct. ...	71	4	1	12	81.1	77.2
Nov. ...	64	8	-	19	79.3	74.5
Dec. ...	57	9	-	20	75.9	71.4
Ann. ...	65	92	71	110	78.6	74.8

1/ Mean monthly frequency of trade winds in Hawaiian waters.

2/ Expected number of hazardous days in Hawaiian waters due to strong trade winds.

3/ Observations at Sunset Beach, Oahu. Annual averages were: flat or 1 foot, 71 days; 2-5 feet, 184 days; 6-10 feet, 71 days; 11-15 feet, 26 days; 16 feet or higher, 13 days.

4/ Observations at Kaneohe, Oahu. The mean ranged from 73.0 in January and February to 80.2 in August. Absolute maximums and minimums were respectively 84 (in July, August, and October) and 68 (December and February).

Source: Paul Haraguchi, Weather in Hawaiian Waters (Honolulu: Pacific Weather, Inc., 1979), pages 14, 22, 56, and 74.

Table 174.-- AVERAGE WATER TEMPERATURES AT WAIKIKI BEACH

[In Fahrenheit degrees]

Month	Morning	Afternoon
March	75	77
August	77	82

Source: U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Climatic Data Center, Local Climatological Data, Annual Summary With Comparative Data, Honolulu, Hawaii, 1983.

Table 175.-- SUNRISE, SUNSET, AND HOURS OF DAYLIGHT AT SELECTED LOCATIONS, AT BEGINNING OF EACH SEASON

[Hawaiian Standard Time]

Subject	Hilo	Kahului	Honolulu	Lihue	Barking Sands
Sunrise (A.M.):					
March 21	6:24	6:29	6:35	6:41	6:42
June 21	5:42	5:45	5:50	5:55	5:56
Sept. 23	6:09	6:15	6:21	6:26	6:28
Dec. 22	6:51	6:58	7:05	7:12	7:14
Sunset (P.M.):					
March 21	6:32	6:37	6:43	6:49	6:51
June 21	7:02	7:10	7:16	7:23	7:25
Sept. 23	6:16	6:21	6:27	6:33	6:35
Dec. 22	5:47	5:50	5:55	6:00	6:01
Hours of daylight:					
March 21	12:08	12:08	12:08	12:08	12:09
June 21	13:20	13:25	13:26	13:28	13:29
Sept. 23	12:07	12:06	12:06	12:07	12:07
Dec. 22	10:56	10:52	10:50	10:48	10:47

Source: Nautical Almanac Office, U.S. Naval Observatory, Tables of Sunrise and Sunset, No. 1083 and 1084, and records. Data provided by Saul Price, Staff Meteorologist, National Weather Service, Pacific Region.

Table 176.-- HAWAII AUDUBON SOCIETY BIRD COUNTS OF THE HONOLULU AREA: 1980 TO 1987

[Counts are made in late December, in a circle, 15 miles in diameter, centered near Nuuanu Pali]

Species 1/	1980-1984 2/	1985	1986	1987
All species:				
Species	46	51	50	50
Individual birds ..	20,878	28,803	28,690	29,009
Endemic species:				
'Apapane	114	66	85	79
Hawaiian Coot	59	23	23	10
Hawaiian Stilt	96	118	103	149
Oahu 'Amakihi	115	125	110	155
Indigenous species:				
Great Frigatebird	212	194	6	15
Red-footed Booby	723	531	402	785
Introduced species:				
Cattle Egret	589	656	988	1,009
Common Myna	3,195	3,586	5,420	5,752
House Sparrow	1,893	2,793	2,633	2,156
Japanese White-eye	1,207	1,628	1,078	1,455
Red-vented Bulbul	1,556	1,972	2,023	2,361
Spotted Dove	1,561	2,774	2,533	2,398
Zebra (Barred) Dove	4,228	7,299	7,860	5,830
Migratory species:				
Lesser Golden-Plover ...	1,603	1,846	1,482	1,673
Ruddy Turnstone	323	268	317	272

1/ Separate data are shown for endemic birds averaging more than 25 individuals in 1975-1979, indigenous birds more than 200, introduced birds more than 500, and migratory species and stragglers more than 100. Endemic birds are those peculiar to a particular region, in this case Hawaii, and therefore found nowhere else in the world; indigenous birds are those native to a given region, in this case Hawaii, but with a total range of distribution encompassing a much wider area. The classification is that in Andrew J. Berger, Hawaiian Birdlife (1972).

2/ Annual averages.

Source: Hawaii Audubon Society, 'Elepaio (monthly).

Table 177.-- HAWAII AUDUBON SOCIETY BIRD COUNT OF THE HONOLULU AREA, BY TYPE OF SPECIES: DECEMBER 1987

Type of species 1/	Number of species	Number of individuals
All species	50	29,009
Endemic	6	427
Indigenous	8	902
Introduced	27	25,569
Migratory	9	2,111

1/ For definitions, see preceding table, footnote 1.

Source: Hawaii Audubon Society, "Honolulu Christmas Count -- 1987," *'Elepaio*, March 1988, pp. 19-21.

Table 178.-- TREES ALONG STREETS OR IN PARKS UNDER THE JURISDICTION OF THE CITY AND COUNTY OF HONOLULU: 1983 TO 1987

[As of June 30]

Location	1983	1984	1985	1986	1987
Along City and County streets and highways 1/ ...	114,320	117,133	118,437	120,029	121,100
In City and County parks	96,504	96,873	96,727	96,896	97,101

1/ Excludes Federal, State, and private thoroughfares.

Source: City and County of Honolulu, Department of Parks and Recreation, records.

Table 179.-- THREATENED, ENDANGERED, AND EXTINCT SPECIES OF NATIVE FAUNA AND FLORA: NOVEMBER 1986

Type of fauna or flora	Native species	Candidate 1/	Threatened 1/	Endangered 1/	Extinct 2/
Land mammals	1	-	-	1	-
Marine mammals	18	-	-	8	-
Reptiles and amphibians	5	-	3	2	-
Birds	87	-	1	29	23
Freshwater fish	6	1	-	-	-
Invertebrates	(3/)	150	-	41	4/ 88
Plants	2,734	787	-	19	4/ 100

1/ Categories of the Federal List of Endangered and Threatened Species, as published in the Federal Register. Candidate species are those being officially considered for listing as threatened or endangered.

2/ Since 1778.

3/ Not known, but nearly 10,000 native species of insects and more than 1,000 native species of land snails have been estimated.

4/ Incomplete and probably much higher.

Source: U.S. Department of the Interior, Fish and Wildlife Service records; P. Q. Tomich, Mammals in Hawaii (1969); Robert L. Pyle, "Checklist of Birds of Hawaii," The 'Elepaio, November 1983; correspondence from W. C. Gagne, Entomology Department, Bishop Museum, July 3, 1985; H. St. John, List and Summary of the Flowering Plants in the Hawaiian Islands (1973), p. 519; University of Hawaii Department of Geography, Atlas of Hawaii (1983), pp. 80 and 83.

Section 6

LAND USE AND OWNERSHIP

General statistics on the use, ownership, and tenure of land appear in this section. Information on specific use or ownership categories is given elsewhere: parks in Section 7, military land in Section 10, agriculture in Section 19, forests in Section 20, and cane land and industrial parks in Section 22.

Out of the 4,112,000 acres in the State, 333,000 are in cropland and 974,000 in pastureland. Other major categories include forestland, with 1,473,000 acres, urban and built-up, with 126,000, and miscellaneous nonfarm, with 852,000. On Oahu, land in residential use increased from 22,600 acres in 1969 to 28,800 in 1987; during the same 18-year span, agricultural land declined from 88,900 to 76,800 acres. For the State as a whole, the Land Use Commission has zoned 166,000 acres as urban, 1,967,000 as conservation, 1,969,000 as agricultural, and 10,000 as rural.

Recent data on land ownership indicate that the Federal government owns 8.4 percent of all land, the State and counties own 29.8 percent, and private owners (chiefly large estates) have 61.8 percent. Total Federal holdings reported by the General Services Administration in 1986 came to 687,000 acres, exclusive of leased land (9,600 acres); most of the Federal land was in wildlife, park and military use. The State Department of Hawaiian Home Lands holds about 187,000 acres, divided among 5,800 lessees. Total land parcels in the State as of 1988 numbered 413,000.

Considerable caution is necessary in comparing statistics from different sources on land use, ownership, or tenure. Variations in definitions and survey dates seriously affect comparability in many instances, even where terminology is relatively unambiguous and misinterpretation seems unlikely. An example of such difficulties is the wide range in estimates of Federal land, with totals ranging from 338,000 acres to 687,000.

Tabulations by the U.S. Department of Agriculture and General Services Administration, Hawaii State Department of Hawaiian Home Lands, Department of Land and Natural Resources, Department of Business and Economic Development, and Land Use Commission, Honolulu Department of Finance, and Honolulu Department of General Planning provided the data for this section. Historical Statistics of Hawaii, Section 12, contains limited information for earlier years. Statistics for the nation as a whole are available in Sections 6, 7, 10, 23, and 24 of the Statistical Abstract of the United States: 1988.

Table 180.-- LAND OWNERSHIP, COVER, OR USE AND TYPES OF WATER AREAS, BY COUNTIES: 1982

[1,000 acres]

Category	State total 1/	City and County of Honolulu 1/	Other counties		
			Hawaii	Kauai	Maui 2/
Total area	4,141.3	397.2	2,582.5	403.0	758.6
Federal land	341.5	51.1	231.9	2.6	55.9
Nonfederal land	3,770.6	330.6	2,349.9	394.0	696.1
Rural land	3,609.6	268.0	2,288.7	379.0	673.9
Cropland	333.2	74.6	85.2	82.3	91.1
Pastureland	974.0	78.1	621.7	48.8	225.4
Rangeland	0.0	0.0	0.0	0.0	0.0
Forest land	1,473.5	104.3	891.7	230.7	246.8
Minor land cover/uses 3/	828.9	11.0	690.1	17.2	110.6
Urban and built-up land	125.9	56.9	42.2	9.8	17.0
Rural transportation	22.8	4.7	10.3	3.1	4.7
Small water areas	12.3	1.0	8.7	2.1	0.5
Water bodies 4/	2.2	0.5	1.3	0.3	0.1
Perennial streams 5/	10.1	0.5	7.4	1.8	0.4
Census water 6/	29.2	15.5	0.7	6.4	6.6

1/ Excludes the Northwestern Hawaiian Islands, legally part of the City and County of Honolulu.

2/ Includes Kalawao County.

3/ Includes farmsteads and ranch headquarters (State total, 3.5), other land in farms (5.6), mines, quarries, and pits (0.0), small built-up areas (2.2), and other rural lands (817.6, of which 687.7 were in Hawaii County).

4/ Includes a State total of 0.8 in bodies less than 2 acres and 1.4 in bodies of 2 to 40 acres.

5/ Includes a State total of 4.1 in streams less than 66 feet wide and 6.0 in streams 66 to 660 feet wide.

6/ Larger water bodies not included in land area totals, as measured by the Bureau of the Census (Pearl Harbor, Kaneohe Bay, etc.).

Source: U.S. Department of Agriculture, Soil Conservation Service, 1982 National Resources Inventory, tables 1c, 2c, 7c, and 8c for Hawaii (unpublished).

BEST AVAILABLE COPY

Table 181.-- LAND USE AND STRUCTURAL CHARACTERISTICS OF OAHU: 1986 AND 1987

Subject	Dec. 1986: Oahu total	December 1987		
		Oahu total	Honolulu district	Rest of Oahu
LAND USE (IN ACRES)				
All existing uses	375,647	375,476	53,941	321,534
Single family	26,153	26,182	8,460	17,722
Multi-family	2,645	2,633	1,108	1,525
Industrial	10,370	10,326	4,218	6,108
Commercial	4,330	4,383	1,812	2,571
Hotel	300	301	129	172
Agriculture	77,087	76,842	308	76,534
Usable vacant	36,385	36,684	2,943	33,740
Other	218,376	218,125	34,964	183,161
STRUCTURES BY YEAR BUILT 1/				
All structures	147,761	149,086	63,929	85,157
Before 1930	8,102	7,951	6,052	1,899
1930 to 1939	9,622	9,482	6,006	3,476
1940 to 1949	16,007	15,834	9,028	6,806
1950 to 1959	30,649	30,543	14,730	15,813
1960 to 1969	41,572	41,513	15,721	25,792
1970 to 1979	28,282	28,253	8,205	20,048
1980 and later	13,527	15,510	4,187	11,323
DWELLING UNITS BY TYPE 1/				
All dwelling units	257,485	258,823	146,162	112,661
Single family and duplex	136,529	137,892	57,020	80,872
Low density multi-family	13,466	13,482	1,015	12,467
High density multi-family	107,490	107,449	88,127	19,322

1/ Data exclude structures on military bases.

Source: City and County of Honolulu, Department of General Planning, records.

Table 182.-- LAND PARCELS, BY COUNTIES: 1985 TO 1988

[As of January 1]

Year	State total	City and County of Honolulu	County of Maui	County of Hawaii	County of Kauai
1985	398,148	208,466	47,076	120,177	22,429
1986	404,018	212,868	47,321	121,349	22,480
1987	409,069	215,207	48,568	122,180	23,114
1988	412,862	217,971	48,863	122,788	23,240

Source: City and County of Honolulu, Department of Finance, Real Property Assessment Division, Real Property Tax Valuations, Tax Rates, & Exemptions, State of Hawaii (annual).

Table 183.-- CEMETERIES, CHURCHES, HOSPITALS, AND SCHOOLS, BY COUNTIES: 1988

[Privately-owned parcels exempt from real property taxes]

Category	State total	Honolulu	Maui	Hawaii	Kauai
Cemeteries	126	48	27	44	7
Churches	1,387	771	208	273	135
Hospitals	74	59	12	-	3
Schools	129	92	5	29	3

Source: City and County of Honolulu, Department of Finance, Real Property Assessment Division, Real Property Tax Valuations, Tax Rates & Exemptions, 1988-1989 Tax Year, State of Hawaii (July 1988), p. 6.

Table 184.-- ACREAGE OF LAND USE CLASSES, BY COUNTIES: MAY-JUNE 1988

[Based on land use classifications used for real property assessment purposes. Data exclude public streets and highways and other areas not in parcels of record. For unknown reasons, totals in this table differ significantly from the corresponding 1987 figures in Data Book 1987, table 199]

Land use class 1/	State total	City and County of Honolulu	County of Maui	County of Hawaii	County of Kauai
All uses 2/	4,143,748	426,106	799,122	2,520,011	398,509
Improved residential ...	123,744	92,932	14,318	12,252	4,243
Apartment	5,757	2,384	1,065	1,737	571
Commercial	5,483	2,823	842	1,271	547
Industrial	20,027	10,365	1,789	6,568	1,304
Agricultural	1,979,956	135,414	445,961	1,195,846	202,736
Conservation	1,947,237	149,492	328,967	1,284,787	183,991
Hotel and resort	2,932	511	1,104	554	764
Unimproved residential .	58,613	32,186	5,076	16,997	4,354

1/ Based on "Pitt codes" as established by the "Pittsburgh Law" of differential tax rates for real property assessment and taxation as specified in Sec. 246-10, Hawaii Revised Statutes, 1985 Replacement.

2/ Because of excluded categories, these totals differ from figures for total area shown elsewhere in the Data Book.

Source: City and County of Honolulu, Department of Finance, Real Property Assessment Division, records.

Table 185.-- ESTIMATED ACREAGE OF LAND USE DISTRICTS: 1964 TO 1988

[Total acreage, including inland water, as classified by the Hawaii State Land Use Commission under the provisions of Chapter 205, Hawaii Revised Statutes. All data are approximate]

Year and month	Total area 1/	Classification by State Land Use Commission 2/			
		Urban	Conservation	Agricultural	Rural
UNADJUSTED 3/					
1964: August ...	4,111,500	117,800	1,862,600	2,124,400	6,700
1969: August ...	4,111,500	140,163	2,009,087	1,955,875	6,375
1974: March	4,111,500	147,472	1,986,429	1,968,727	8,872
1975: February .	4,111,500	148,921	1,976,996	1,976,695	8,888
1977: January ..	4,111,500	149,263	1,976,996	1,976,327	8,914
1978: January ..	4,111,500	151,012	1,976,931	1,974,340	9,217
1979: January ..	4,111,500	151,929	1,976,106	1,974,230	9,235
1980: January ..	4,111,500	152,199	1,975,865	1,974,196	9,240
1981: January ..	4,111,500	154,319	1,975,836	1,972,104	9,241
1982: January ..	4,111,500	154,726	1,975,672	1,971,886	9,216
1983: January ..	4,112,388	156,413	1,975,473	1,971,279	9,223
1984: January ..	4,112,388	156,568	1,975,473	1,970,146	10,201
1985: January ..	4,112,388	158,620	1,969,351	1,974,236	10,181
1986: January ..	4,112,388	163,211	1,968,804	1,970,189	10,184
1987: January ..	4,112,388	165,165	1,967,638	1,969,401	10,184
1988: January ..	4,112,388	166,507	1,967,168	1,968,524	10,189
ADJUSTED 3/					
1988: January ..	4,112,388	165,607	1,967,247	1,969,345	10,189

1/ These totals differ somewhat from the official figures based on measurements by the Geography Division of the U.S. Bureau of the Census, cited in Section 5. The increase in the 1983 total area reflects additions to the Urban District on Oahu at Honolulu International Airport (Reef runway and South Ramp refill) created from former submerged lands.

2/ For definitions, see Hawaii Revised Statutes, 1985 Replacement, Section 205-2.

3/ For changes in classification resulting from court decisions on past Commission actions (A76-420, Department of Planning and Economic Development; A76-421, West Beach Development; A78-444, Lear Siegler, et al.; A79-469, MSM Associates.

Source: Hawaii State Department of Business and Economic Development, Land Use Commission, records.

Table 186 -- ESTIMATED ACREAGE OF LAND USE DISTRICTS, BY ISLANDS: JANUARY 1988

[Total acreage, including inland water, as classified by the Hawaii State Land Use Commission under the provisions of Chapter 205, Hawaii Revised Statutes. All data are approximate]

Year and month	Total area 1/	Classification by State Land Use Commission 2/			
		Urban	Conservation	Agricultural	Rural
UNADJUSTED 3/					
State total	4,112,388	166,507	1,967,168	1,968,524	10,189
Hawaii	2,573,400	41,846	1,300,883	1,230,052	619
Maui	465,800	17,109	193,679	251,267	3,745
Kahoolawe	28,800	-	28,800	-	-
Lanai	90,500	2,338	38,203	47,239	2,720
Molokai	165,800	2,503	49,768	111,657	1,872
Oahu	386,188	90,320	154,803	141,065	-
Kauai	353,900	12,391	198,732	141,544	1,233
Niihau	45,700	-	-	45,700	-
Kaula and Lehua	400	-	400	-	-
Other islands 4/	1,900	-	1,900	-	-
ADJUSTED 3/					
State total	4,112,388	165,607	1,967,247	1,969,345	10,189
Hawaii	2,573,400	41,846	1,300,883	1,230,052	619
Maui	465,800	17,109	193,679	251,267	3,745
Kahoolawe	28,800	-	28,800	-	-
Lanai	90,500	2,338	38,203	47,239	2,720
Molokai	165,800	2,503	49,768	111,657	1,872
Oahu	386,188	89,420	154,882	141,886	-
Kauai	353,900	12,391	198,732	141,544	1,233
Niihau	45,700	-	-	45,700	-
Kaula and Lehua	400	-	400	-	-
Other islands 4/	1,900	-	1,900	-	-

1/ These totals differ somewhat from the official figures based on measurements by the Geography Division of the U.S. Bureau of the Census, cited in Section 5.

2/ For definitions, see Hawaii Revised Statutes, 1985 Replacement, Section 205-2.

3/ For changes in classification resulting from court decisions on past Commission actions (see preceding table, footnote 3).

4/ The Northwestern Hawaiian Islands, from Nihoa to Kure Atoll, excluding Midway.

Source: Hawaii State Department of Business and Economic Development, Land Use Commission, records.

Table 187.-- LAND OWNERSHIP OR TENURE: 1965 TO 1988

[1,000 acres. Government land leased to private users is included with privately owned land]

Year	All land 1/	Owned by government 2/			Privately owned land
		Federal	State	Counties	
1965	4,105.6	310.1	895.2	15.0	2,885.4
1970	4,112.3	309.2	835.3	12.1	2,955.6
1983	3,930.6	328.4	1,178.0	15.2	2,409.1
1984	3,931.4	327.6	1,197.8	15.2	2,390.8
1985	3,936.9	327.4	1,194.9	15.1	2,399.6
1986	3,934.2	329.9	1,152.6	15.2	2,436.5
1987	3,930.1	279.6	1,121.6	13.6	2,515.4
1988	4,035.6	338.0	1,188.2	14.9	2,494.4

1/ Because of the omission of public thoroughfares and for other reasons, totals differ considerably from official area estimates in other tables in this volume.

2/ State land ceded by presidential proclamation or governor's executive order to the federal government appears in most cases to have been classified for this table as federal land, even though title to it technically remains with the state. Land ceded by the state to the counties, in contrast, has probably been classified as state land. For both types of ceded land, treatment may have varied from parcel to parcel.

Source: Real property tax records; tabulations in *The State of Hawaii Data Book* for 1970 (p. 38), 1971 (p. 55), 1983 (p. 192), 1984 (p. 225), 1985 (p. 190), 1986 (p. 200), 1987 (p. 204), and 1988 (following table).

Table 188.-- LAND OWNERSHIP OR TENURE, BY ISLANDS: FALL 1988

[In acres. Government land leased to private users is included with privately owned land]

Island	All land 1/	Land owned by government 2/			Privately owned land
		Federal	State	Counties	
State total 3/ ..	4,035,601	338,035	1,188,242	14,898	2,494,426
Percent	100.0	8.4	29.4	0.4	61.8
Hawaii	2,497,055	229,848	817,391	1,278	1,448,537
Maui	448,170	26,875	102,345	1,568	317,381
Kahoolawe	28,800	28,800	-	-	-
Molokini	19	19	-	-	-
Lanai	88,985	5	124	14	88,843
Molokai	170,910	211	47,601	265	122,831
Oahu	403,154	48,861	69,541	11,162	273,590
Kauai	351,292	3,158	150,984	610	196,540
Niihau	46,705	-	-	-	46,705
Lehua and Kaula	512	256	256	-	-

1/ Because of the omission of public thoroughfares and for other reasons, totals by island may differ considerably from official area estimates in other tables in this volume.

2/ State land ceded by presidential proclamation or governor's executive order to the federal government appears in most cases to have been classified for this table as federal land, even though title to it technically remains with the state. Land ceded by the state to the counties, in contrast, has probably been classified as state land. For both types of ceded land, treatment may have varied from parcel to parcel.

3/ Data exclude the Northwestern Hawaiian Islands (1,722 acres).

Source: City and County of Honolulu, Department of Finance, Real Property Assessment Division, records. Tabulation by State Department of Business and Economic Development.

Table 189.-- LAND IN HAWAII OWNED BY LARGE AND SMALL LANDOWNERS: 1985, 1986, AND 1987

Ownership	1985	1986 1/	1987
Land area of State (acres) 2/	3,936,878	3,934,165	3,930,143
Owned by government 2/	1,537,327	1,497,713	1,414,750
Owned privately 2/	2,399,551	2,436,452	2,515,393
Six large owners 3/	941,850	938,362	935,560
Bernice P. Bishop Estate 4/ ...	340,690	340,771	340,454
Richard S. Smart (Parker Ranch) 5/	139,301	139,301	139,301
Castle and Cooke, Inc. 6/	149,700	149,400	148,580
C. Brewer and Company, Ltd. 6/	95,800	92,591	91,501
Samuel M. Damon Estate 6/	121,659	121,599	121,599
Alexander and Baldwin, Inc. 6/	94,700	94,700	94,125
All others	1,457,701	1,498,090	1,579,833
Percent of total land area	100.0	100.0	100.0
Owned by government	39.0	38.1	36.0
Owned privately	61.0	61.9	64.0
Six large owners	23.9	23.9	23.8
All others	37.0	38.1	40.2
Percent of privately owned land	100.0	100.0	100.0
Six large owners	39.3	38.5	37.2
All others	60.7	61.5	62.8

1/ Revised from Data Book 1987, table 203.

2/ As of Spring 1985, Summer 1986, and Fall 1987. Because of the omission of public thoroughfares and for other reasons, the State total may vary from year to year and also may differ from official area estimates in other tables of this volume.

3/ Some of these figures are not exact accountings but are the landowners' best estimates.

4/ As of June 30.

5/ As of December 31. The total size of the Parker Ranch, including leased land, was 225,000 acres during this period.

6/ As of December 31.

Source: State total, government total, and private total from The State of Hawaii Data Book 1987, table 201; six large owners from DBED survey of those owners; all other owners calculated as a residual.

Table 190.-- REAL PROPERTY OWNED BY OR LEASED TO THE FEDERAL GOVERNMENT: 1984 TO 1986

Subject	Sept. 30, 1984 1/	Sept. 30, 1985	Sept. 30, 1986
OWNED			
Number of installations	(NA)	312	311
Land area, total (acres)	683,716.2	711,699.7	687,041.5
Urban	(NA)	91,112.4	61,673.1
Rural	(NA)	620,587.3	625,368.4
Number of buildings	(NA)	15,665	15,651
Cost, total ($1,000) 2/	(NA)	2,208,937	2,240,010
Land	(NA)	221,002	170,266
Buildings	(NA)	1,235,490	1,282,653
Structures and facilities	(NA)	752,445	787,091
Predominant usage (acres):			
Agriculture and grazing	(NA)	-	-
Forest and wildlife	(NA)	255,650.0	267,189.5
Parks and historic sites	(NA)	245,110.1	245,110.1
Power development and distribution	(NA)	-	-
Reclamation and irrigation	(NA)	-	-
Office building locations	(NA)	52.7	54.9
Military, excluding airfields	(NA)	113,103.0	112,671.6
Airfields	(NA)	10,689.6	10,420.4
Harbor and port facilities	(NA)	23.6	23.6
Flood control and navigation	(NA)	1,424.2	1,424.2
Vacant	(NA)	3.0	3.0
Institutional	(NA)	358.0	358.0
Housing	(NA)	87.4	87.4
Storage	(NA)	926.1	926.1
Industrial	(NA)	9,881.4	9,173.0
Research and development	(NA)	8.0	8.0
Other land	(NA)	74,382.6	39,591.7
LEASED			
Number of leases	321	289	303
Land area, total (acres)	50,705.6	9,624.5	9,420.5
Urban	244.0	396.9	313.2
Rural	50,461.6	9,227.6	9,107.3
Number of building locations	219	186	187
Floor area of buildings (sq. ft.)	430,196	425,863	426,642
Annual rental ($1,000)	2,781	2,795	3,079

Footnote and source on next page.

Table 190.-- REAL PROPERTY OWNED BY OR LEASED TO THE FEDERAL GOVERNMENT: 1984 TO 1986 -- Con.

NA Not available.

1/ Total acreage owned corrected from figures published in source. Other 1984 statistics on Federally-owned property reported in the source likewise contained errors but were not corrected, and hence are omitted from this table.

2/ At time of acquisition. Includes estimated equivalent cost of properties acquired through donation, exchange, devise, forfeiture, or judicial process.

Source: U.S. General Services Administration, Summary Report of Real Property Owned by the United States Throughout the World (annual) and Summary Report of Real Property Leased to the United States Throughout the World (annual). The 1984 data were corrected by GSA on May 23, 1986.

Table 191.-- DEPARTMENT OF HAWAIIAN HOME LANDS ACREAGE, LESSEES, AND APPLICANTS, BY ISLANDS: JUNE 30, 1987

[The Department of Hawaiian Home Lands administers land set aside for the benefit of qualified native Hawaiians, who receive homestead leases and financial assistance from the Department]

Island	Acreage		Homestead leases		Applicant waiting list	
	Total	In homestead use	Agricultural and pastoral	Residential	Agricultural and pastoral	Residential
State total ..	187,413	32,713	1,195	4,608	5,932	9,970
Hawaii	107,883	20,943	534	1,024	2,846	2,672
Maui	28,995	541	68	492	1,498	1,533
Molokai	25,366	9,477	480	320	438	457
Oahu	6,600	921	66	2,366	381	4,526
Kauai	18,569	831	47	406	769	782

Source: Hawaii State Department of Hawaiian Home Lands, 'Aina Ho'opulapula. Annual Report, 1987, pp. 10, 11, and 17.

Table 192.-- STATE PUBLIC AND SET-ASIDE LAND INVENTORY, BY COUNTIES: MARCH 10, 1988

[In thousands of acres]

Type of document	State total	City and County of Honolulu	County of Hawaii	County of Kauai	County of Maui
All types	1,414.7	67.9	980.1	155.4	211.4
Public lands	422.8	15.3	326.9	38.2	42.5
General lease 1/	226.5	4.7	186.6	23.2	11.9
Revocable permit 2/	111.2	2.8	73.9	12.0	22.5
Unencumbered lands 3/...	85.1	7.7	66.4	2.9	8.1
Lands set aside to other government agencies	780.8	42.3	536.4	96.5	105.6
Executive order	258.3	13.1	196.1	23.9	25.2
Governor's proclamation	522.5	29.2	340.3	72.7	80.4
Dept. of Hawaiian Home Lands	191.9	4.9	107.8	19.0	60.2
University of Hawaii	1.8	0.7	0.5	0.4	0.1
Hawaii Housing Authority .	1.5	1.2	0.1	0.0	0.1
Highways and roads	15.9	3.5	8.2	1.2	2.9

1/ Long-term leases. Mostly agricultural and pasture land. Includes land covered by water licenses not set aside to other government agencies.

2/ Month-to-month leases. Mostly agricultural and pasture land. Includes land licenses.

3/ Parcels with no documents and not in use.

Source: Hawaii State Department of Land and Natural Resources, Land Management Division, records.

BEST AVAILABLE COPY

Section 7

RECREATION AND TOURISM

Statistics on tourism, recreation, sports, museums, parks, pets, and the performing arts appear in this section. Additional information on recreational and resort land use is given in Section 6; on transportation, in Section 18; and on hotels and hotel workers, in Sections 12, 13, 15 and 23.

Approximately 5,800,000 visitors stayed overnight or longer in Hawaii during 1987, compared with 3,434,000 in 1977 and only 1,125,000 in 1967. The average number present at any given time during 1987 was 134,000. Total visitor expenditures (exclusive of trans-Pacific fares) in 1987 amounted to $6.6 billion, compared with $1.8 billion a decade earlier. The 1987 visitor total included 3.7 million from other States, 242,000 from Canada, and 1,161,000 from Japan. Expenditures per visitor day in 1987 averaged $102 for westbound visitors and $367 for the Japanese. Visitor-related spending in 1986 resulted in tax revenues of $657 million and generated 196,000 jobs.

Both visitors and residents have access to a wide range of recreational and cultural facilities. The State has seven national parks and similar areas, 76 State parks, 561 county parks, 56 golf courses, 278 public tennis courts, 2,027 small-boat moorages, 1,600 recognized surfing sites, and 24.4 miles of safe, sandy, accessible beach. Recreational, scenic and cultural facilities reporting more than two million annual visits each in 1987 included Waikiki Beach, Hanauma Bay, the National Memorial Cemetery of the Pacific, and Wailua River State Park. Total visits to 61 museums, State monuments, zoos, and similar attractions in 1987 numbered 17.8 million. Almost 400,000 Hawaii residents traveled to the Mainland in 1987. Twelve theatrical groups on Oahu reported 1,354 performances of 439 productions for the 1986-1987 season, with a combined audience of 875,000. During the same season, the Honolulu Symphony Orchestra gave 85 concerts, with a total attendance of 140,000. During the 1987-1988 school year, attendance at UH-Manoa varsity baseball, basketball, football and volleyball home games was 577,000.

Information on recreation and tourism is issued periodically by the Hawaii Visitors Bureau (particularly in its Annual Research Report), the State Parks Division of the Department of Land and Natural Resources, the Hawaii State Department of Business and Economic Development, U.S. National Park Service, County park and recreation departments, and other organizations. Long-term trends are summarized in Historical Statistics of Hawaii, Section 11. National statistics are given in Section 7 of Statistical Abstract of the United States: 1988.

Table 193.-- PASSENGERS ARRIVING, BY DIRECTION OF TRAVEL AND TRANSIT STATUS: 1978 TO 1987

Direction and status	1978	1979	1980	1981	1982
All directions ..	4,784,561	5,291,333	5,380,383	5,305,809	5,580,240
Landing	3,898,864	4,144,183	4,172,640	4,211,250	4,582,020
Intransit	885,697	1,147,150	1,207,743	1,094,559	998,220
Westbound 1/	3,664,351	3,839,041	3,861,059	3,780,383	4,078,360
Landing	3,227,409	3,292,928	3,257,853	3,223,653	3,589,625
Intransit	436,942	546,113	603,206	556,730	488,735
Eastbound 2/	1,120,210	1,452,292	1,519,324	1,525,426	1,501,880
Landing	671,455	851,255	914,787	987,597	992,390
Intransit	448,755	601,037	604,537	537,829	509,490

Direction and status	1983	1984	1985	1986	1987
All directions ..	5,546,540	6,107,730	6,314,290	7,063,710	7,324,280
Landing	4,653,450	5,242,770	5,338,170	6,068,990	6,248,550
Intransit	893,090	864,960	976,120	994,720	1,075,730
Westbound 1/	4,098,720	4,543,890	4,675,690	5,245,690	5,214,520
Landing	3,654,560	4,082,070	4,137,830	4,689,480	4,617,230
Intransit	444,160	461,820	537,860	556,210	597,290
Eastbound 2/	1,447,820	1,563,840	1,638,600	1,818,020	2,109,760
Landing	998,890	1,160,700	1,200,340	1,379,510	1,631,320
Intransit	448,930	403,140	438,260	438,510	478,440

1/ Arriving from North America.
2/ Arriving from Asia or Oceania.
Source: Hawaii Visitors Bureau, 1987 Westbound Visitors to Hawaii, p. 5.

Table 194.-- U.S. RESIDENTS 18 YEARS AND OLDER WHO HAVE LIVED IN OR VISITED HAWAII: 1987

Subject	Amount
Number (millions)	39.6
Percent	22
Rank (among 50 States)	49

Source: Market Facts, Inc., 1987, cited in Timothy Q. Rounds, "Where In the World Have You Been?," American Demographics, May 1988, pp. 30-33. Based on a sample survey of 3,148 persons.

Table 195.-- VISITOR ARRIVALS, BY BROAD TIME PERIODS: 1921 TO 1987

[In thousands. Limited to visitors staying overnight or longer; excludes ship and aircraft officers and crews, armed forces arriving aboard army and navy ships and aircraft, and passengers making brief layovers]

Subject	1921-1941	1942-1945	1946-1959	1960-1969	1970-1979	1980-1987
Visitor arrivals	374	-	1,268	7,460	28,341	37,627
Annual average	18	-	91	746	2,834	4,703
Cumulative since 1921 1/	374	374	1,642	9,102	37,443	75,070

1/ Systematic collection of visitor statistics was begun in 1921. Rough estimates based on fragmentary information suggest that perhaps 180,000 visitors arrived during the 120-year period before 1921.

Source: The State of Hawaii Data Book 1986, tables 201 and 203; present volume, table 198.

Table 196.-- RESIDENCE STATUS OF WESTBOUND PASSENGERS ARRIVING IN HAWAII: 1982 TO 1987

[Based on a 20-percent sample through 1983 and a 10-percent sample thereafter]

Year	All westbound passengers	Visitors destined to Hawaii	Visitors destined beyond Hawaii		Returning residents	Intended residents
			Overnight or longer	In transit		
1982 ...	4,078,360	2,896,255	382,270	488,725	290,040	21,070
1983 ...	4,098,740	3,086,995	309,120	444,180	236,725	21,720
1984 ...	4,543,890	3,385,880	335,500	461,820	333,640	27,050
1985 ...	4,675,690	3,386,530	322,080	537,860	403,450	25,770
1986 ...	5,245,690	3,915,770	340,620	556,210	411,440	21,650
1987 ...	5,214,520	3,868,880	335,130	597,290	398,580	14,640

Source: Hawaii Visitors Bureau, Market Research Department.

Table 197.-- WESTBOUND PARTIES, BY VISITOR STATUS: 1986 AND 1987

Year	All surveyed parties	Visitors destined --		Returning residents	Intended residents
		To Hawaii	Beyond Hawaii		
1986 ..	2,625,310	2,124,390	204,100	284,020	12,800
1987 ..	2,626,140	2,133,280	208,410	275,590	8,860

Source: Hawaii Visitors Bureau, 1987 Westbound Visitors to Hawaii, p. 8.

Table 198.-- VISITOR ARRIVALS AND AVERAGE VISITOR CENSUS: 1964 TO 1987

[For earlier years, 1921-1963, see Data Book 1987, table 210]

Year	Visitors staying overnight or longer			Average number of visitors present		
	Total	West-bound 1/	Other	Total	West-bound 1/	Other
1964	563,925	460,290	103,635	16,037	14,901	1,136
1965	686,928	567,218	119,710	17,369	16,057	1,312
1966	835,456	686,886	148,570	20,918	19,271	1,647
1967	1,124,818	893,103	231,715	27,630	24,898	2,732
1968	1,314,571	1,015,844	298,727	32,335	28,784	3,551
1969	1,527,012	1,181,029	345,983	37,198	33,088	4,110
1970	1,746,970	1,326,135	420,835	36,943	32,028	4,915
1971	1,818,944	1,430,325	388,619	40,889	36,504	4,385
1972	2,244,377	1,782,737	461,640	50,143	45,098	5,045
1973	2,630,952	2,067,861	563,091	59,578	53,407	6,171
1974	2,786,489	2,184,620	601,869	63,535	56,939	6,596
1975	2,829,105	2,207,417	621,688	66,308	59,495	6,813
1976	3,220,151	2,551,601	668,550	75,532	68,225	7,307
1977	3,433,667	2,763,312	670,355	83,030	75,684	7,346
1978	3,670,309	3,030,999	639,310	92,034	85,028	7,006
1979	3,960,531	3,139,455	821,076	98,676	89,678	8,998
1980	3,934,504	3,046,132	888,372	96,497	86,788	9,709
1981	3,934,623	2,974,791	959,832	95,968	85,449	10,519
1982	4,242,925	3,278,525	964,400	105,310	94,740	10,570
1983	4,368,105	3,396,115	971,990	108,045	97,395	10,650
1984	4,855,580	3,721,380	1,134,200	118,660	106,260	12,400
1985	4,884,110	3,708,610	1,175,500	116,700	103,820	12,880
1986	5,606,980	4,256,390	1,350,590	132,910	118,110	14,800
1987	5,799,830	4,204,010	1,595,820	134,270	116,780	17,490

1/ Arriving from the Mainland United States or Canada. Based on a 20-percent sample through 1983 and a 10-percent sample thereafter.

Source: Hawaii Visitors Bureau, Annual Research Report (annual) and records.

Table 199.-- RESIDENCE OF OVERNIGHT AND LONGER VISITORS TO HAWAII: 1984 TO 1987

[Approximate figures, in thousands]

Place of residence	1984	1985	1986	1987
Total	4,856	4,884	5,607	5,800
United States	3,168	3,200	3,739	3,669
Foreign	1,688	1,684	1,868	2,131
Asia	924	986	1,083	1,313
Japan	816	855	944	1,161
Other Asia	108	131	139	152
Canada	330	279	282	242
Europe	63	59	99	171
United Kingdom	36	31	49	66
West Germany	18	19	30	63
Other Europe	9	9	20	42
Oceania and South Pacific	334	323	360	373
Australia	210	204	219	218
New Zealand	76	78	98	117
Other South Pacific	48	41	43	38
Other foreign	37	37	44	32

Source: Hawaii Visitors Bureau, tabular release dated March 1988.

Table 200.-- VISITOR DAYS, BY DIRECTION OF TRAVEL: 1986 AND 1987

Year	Total	Westbound	Eastbound and northbound 1/
1986	48,512,670	43,110,310	5,402,360
1987	49,010,010	42,626,730	6,383,280

1/ Approximate totals, based on 4-day average length of stay.

Source: Hawaii Visitors Bureau, 1987 Westbound Visitors to Hawaii, p. 6.

Table 201.-- WESTBOUND VISITOR ARRIVALS, BY COUNTIES VISITED: 1982 TO 1987

[Covers westbound visitors staying overnight or longer anywhere in the State, and any overnight or non-overnight interisland trips reported by these visitors. Based on a 20-percent sample through 1983 and a 10-percent sample thereafter]

Year	State total 1/	City and Co. of Honolulu	Hawaii County	Kauai County	Maui County
1982 ...	3,278,525	2,589,190	678,170	733,295	1,550,080
1983 ...	3,396,115	2,591,635	712,380	691,940	1,644,605
1984 ...	3,721,380	2,901,320	760,940	814,590	1,854,690
1985 ...	3,708,610	2,828,640	697,380	832,580	1,831,110
1986 ...	4,256,390	3,146,030	786,930	1,014,650	2,001,870
1987 ...	4,204,010	3,078,500	782,550	1,032,840	1,908,780

1/ Because many visitors visited more than one county, county data sum to totals greater than the State totals shown here.

Source follows next table.

Table 202.-- AVERAGE VISITOR CENSUS, BY COUNTIES: 1982 TO 1987

[Unlike the preceding table, this table includes eastbound and northbound visitors (all of whom have been included with the City and County of Honolulu) as well as westbound visitors. Based on a 20-percent sample through 1983 and a 10-percent sample thereafter]

Year	State total	City and Co. of Honolulu	Hawaii County	Kauai County	Maui County
1982 ...	105,310	73,445	6,725	7,050	18,090
1983 ...	108,045	66,695	8,690	7,990	24,670
1984 ...	118,660	67,370	7,570	10,930	32,790
1985 ...	116,700	65,280	8,040	11,470	31,910
1986 ...	132,910	73,870	9,870	14,840	34,330
1987 ...	134,270	74,660	10,210	15,510	33,890

Source: Hawaii Visitors Bureau, release dated March 1988 and records.

Table 203.-- SUMMARY CHARACTERISTICS OF WESTBOUND VISITORS TO HAWAII: 1977 TO 1987

[Based on a 20-percent sample through 1983 and a 10-percent sample thereafter]

Year	Residence (percent) 1/		Males per 1,000 females	Median age (years)	High status occupations 2/ (percent)	Persons per party
	Pacific & Mountain States	California				
1977	40.2	25.8	802	43.2	58.8	1.78
1978	41.3	26.0	810	42.9	59.8	1.81
1979	43.1	25.7	823	41.7	60.1	1.80
1980	47.1	30.6	829	41.3	62.0	1.79
1981	45.8	30.3	810	40.2	61.0	1.82
1982	44.2	29.5	789	39.1	61.5	1.82
1983	49.1	34.3	825	39.8	61.7	1.83
1984	41.9	27.2	812	40.1	61.5	1.84
1985	41.6	27.3	805	39.7	62.1	1.85
1986	45.2	29.8	829	39.7	62.8	1.84
1987	46.1	29.1	825	40.5	62.5	1.81

Year	Arriving June 1-Aug. 31 (percent)	Repeat visitors 3/ (percent)	Pleasure trip (percent)	Staying in hotel 4/ (percent)	Average intended stay 5/ (days)	Intending to visit Neighbor Islands 6/ (percent)
1977	27.3	41.1	78.6	...	10.9	66.8
1978	26.7	42.8	76.5	...	11.2	68.2
1979	27.0	44.1	76.7	74.4	11.2	68.5
1980	28.6	48.4	75.4	71.2	11.2	68.3
1981	28.4	47.2	77.7	70.1	11.3	67.0
1982	27.9	45.9	80.4	64.6	11.2	67.3
1983	28.9	50.4	77.8	61.7	11.0	66.9
1984	26.7	47.3	79.7	62.7	10.9	69.0
1985	25.7	46.3	80.2	58.1	10.7	69.3
1986	27.5	49.2	82.2	55.8	10.5	69.0
1987	27.6	50.0	81.1	57.1	10.5	69.0

Footnotes and source on next page.

Table 203.-- SUMMARY CHARACTERISTICS OF WESTBOUND VISITORS TO HAWAII: 1977 TO 1987 -- Con.

1/ Base includes estimated number of visitors arriving directly from Canada and usually omitted from the Hawaii Visitors Bureau Basic Data Survey.

2/ Party heads only. Calculated as the number of professional, technical, business, managerial and official workers as a percent of all party heads responding to this question.

3/ Party heads only.

4/ Excludes condominiums operating as hotels.

5/ Computed from total visitor days and total visitor arrivals for westbound visitors destined for Hawaii. These data may differ somewhat from corresponding data in the source, because of different computation procedures.

6/ Base includes passengers who did not answer this question.

Source: Hawaii Visitors Bureau, Annual Research Report for 1977-1987 and records.

Table 204.-- VISITOR INDUSTRY PROJECTIONS: 1985 TO 2010

[Series M-K projections, developed by DBED]

Year	Visitor arrivals (1,000)	Average visitor census (1,000)		Hotel employment (1,000)		Visitor and crew expenditures (millions of 1982 dollars)
		State total	Oahu only	State total	Oahu only	
1985 (est.) ..	4,884	117	65	29.0	16.1	4,210
1990	6,521	152	82	34.5	17.9	6,070
1995	7,746	179	89	38.1	18.7	7,324
2000	8,979	206	97	41.3	19.0	8,556
2005	10,159	233	105	43.7	19.0	9,680
2010	11,494	264	113	46.3	19.0	10,952

Source: 1985 from Hawaii Visitors Bureau and Hawaii State Department of Labor and Industrial Relations; 1990-2010 from Hawaii State Department of Business and Economic Development, forthcoming report.

Table 205.-- DEMOGRAPHIC CHARACTERISTICS OF WESTBOUND VISITORS TO AND BEYOND HAWAII: 1986 AND 1987

[Data limited to visitors staying overnight or longer]

Subject	Visitors to Hawaii		Visitors beyond Hawaii	
	1986	1987	1986	1987
All visitors	3,915,770	3,868,880	340,620	335,130
Age:				
Under 10 years	116,400	95,290	22,890	16,040
10 to 19 years	286,700	271,070	27,920	25,740
20 to 29 years	672,920	649,370	66,880	70,510
30 to 39 years	810,010	768,900	67,330	59,900
40 to 49 years	707,630	735,610	54,160	54,180
50 to 59 years	554,330	544,000	38,400	39,520
60 years and over	582,720	573,820	31,260	35,160
Age not reported	185,060	230,820	31,780	34,080
Sex:				
Male	1,775,170	1,748,950	185,500	181,100
Female	2,140,600	2,119,930	155,120	154,030
Residence (census divisions):				
Pacific	1,490,470	1,506,270	16,380	15,000
Alaska	33,010	50,450	450	780
California	1,167,210	1,124,570	12,830	11,830
Oregon	91,930	105,860	930	620
Washington	198,320	225,390	2,170	1,770
Mountain	279,590	276,430	3,710	3,240
West North Central	229,280	211,560	3,140	3,000
West South Central	239,820	205,260	4,220	4,040
East North Central	457,560	431,810	6,950	6,100
East South Central	83,460	87,680	1,520	1,860
New England	138,500	143,330	3,440	3,820
Middle Atlantic	355,280	345,850	10,370	8,710
South Atlantic	312,350	314,470	9,860	9,400
U.S. territories	400	410	2,540	2,260
Canada	247,140	212,650	4,910	3,400
Other foreign	81,690	133,160	273,540	274,300
Residence not reported	230	-	40	-

Source: Hawaii Visitors Bureau, 1987 Westbound Visitors to Hawaii, pp. 10-13.

Table 206.-- TRIP CHARACTERISTICS OF WESTBOUND VISITORS TO AND BEYOND HAWAII: 1986 AND 1987

[Data limited to visitors staying overnight or longer]

Subject	Visitors to Hawaii		Visitors beyond Hawaii	
	1986	1987	1986	1987
All visitors	3,915,770	3,868,880	340,620	335,130
Purpose of trip:				
Pleasure	3,202,700	3,150,120	283,410	286,380
Business	82,760	88,990	12,640	11,500
Business and pleasure	391,490	379,200	25,810	21,180
Government and military	19,650	19,360	4,750	3,670
Visiting relatives	94,870	110,710	5,210	5,130
Attend school	1,690	1,700	340	230
Convention	92,550	94,140	2,760	2,230
Other	9,170	7,730	2,020	960
Purpose not reported	20,890	16,930	3,680	3,850
Traveler status:				
Organized tour group	576,320	503,350	49,810	51,310
Individual basis	3,005,870	3,073,600	271,410	269,140
Incentive	212,750	189,230	6,670	5,450
Government/military	19,790	19,640	4,760	3,670
No answer	101,040	83,060	7,970	5,560
Intended accommodations:				
Hotel	2,184,010	2,207,300	269,590	266,310
Condominium	868,900	821,860	34,160	31,570
Hotel and condominium	418,900	398,270	10,470	9,960
Friend's or relative's home ..	293,670	295,830	18,810	17,750
Other accommodations	146,130	140,830	6,440	7,600
Not reported	4,160	4,790	1,150	1,940

Source: Hawaii Visitors Bureau, 1987 Westbound Visitors to Hawaii, pp. 7, 19, and 20.

Table 207.-- INTENDED LENGTH OF STAY OF WESTBOUND VISITORS TO AND BEYOND HAWAII: 1985 TO 1987

[Data limited to visitors staying overnight or longer]

Destination and length of stay	1985	1986	1987
VISITORS TO HAWAII			
Total	3,386,530	3,915,770	3,868,880
2 to 6 days	261,880	348,680	347,740
7 to 12 days	2,294,890	2,672,040	2,646,440
13 to 18 days	658,750	710,750	685,400
19 to 24 days	89,140	95,990	100,330
25 to 30 days	39,480	44,860	45,440
31 to 60 days	38,100	36,700	38,160
61 to 90 days	3,680	5,230	4,120
91 to 365 days	610	1,520	1,250
Median (days)	10.2	10.1	10.1
VISITORS BEYOND HAWAII			
Total	322,080	340,620	335,130
2 days	26,410	28,160	26,420
3 days	70,840	68,680	66,850
4 to 6 days	152,470	165,410	161,890
7 to 12 days	60,540	65,120	65,080
13 to 365 days	11,820	13,250	14,890
Median (days)	4.8	4.8	4.9

Source: Hawaii Visitors Bureau, 1986 Annual Research Report, p. 14, and 1987 Westbound Visitors to Hawaii, p. 14.

Table 208.-- CHARACTERISTICS OF WESTBOUND VISITOR PARTY HEADS TO AND BEYOND HAWAII: 1986 AND 1987

[Data limited to visitors staying overnight or longer]

Subject	Visitors to Hawaii		Visitors beyond Hawaii	
	1986	1987	1986	1987
All party heads	2,124,390	2,133,280	204,100	208,410
Occupation:				
Professional and technical	784,400	789,990	63,980	62,260
Business, managerial, official	529,930	522,180	63,130	59,840
Clerical, office, sales	193,710	194,020	16,860	16,270
Military service	23,570	22,550	4,120	2,940
Other employed	126,200	131,760	11,490	13,420
Military dependent	4,410	3,580	300	280
Retired	288,280	291,870	16,370	18,940
Student	93,410	93,540	17,070	22,470
Other non-employed	49,030	49,750	6,760	7,390
Not reported	31,450	34,040	4,020	4,600
Trips to Hawaii:				
First trip	997,550	984,100	97,700	104,500
Second trip	378,880	376,570	36,970	36,200
Third trip	183,600	189,330	15,610	14,850
Fourth trip and over	403,600	419,750	34,720	33,240
Not reported	160,760	163,530	19,100	19,620
Persons in party:				
1 person	750,460	761,710	118,710	121,180
2 persons	1,143,070	1,164,790	58,530	65,660
3 persons	100,360	92,370	9,930	8,570
4 persons	91,930	83,580	11,550	9,010
5 persons or more	38,570	30,830	5,380	3,990
Average size	1.84	1.81	1.67	1.61

Source: Hawaii Visitors Bureau, 1987 Westbound Visitors to Hawaii, pp. 9, 21, and 22, and records.

Table 209.-- FAMILY INCOME, TRIP CHARACTERISTICS, AND OPINIONS OF MAINLAND VISITORS TO HAWAII: 1980 TO 1983

Subject	1980	1981	1982	1983
Number of respondents in sample	5,180	4,984	5,810	5,736
Family income before taxes (percent) ..	100.0	100.0	100.0	100.0
Under $15,000	10.3	7.5	6.0	5.0
$15,000 to $24,999	19.4	16.6	16.3	14.7
$25,000 to $34,999	24.1	22.2	21.7	20.3
$35,000 to $49,999	24.0	24.8	24.4	25.2
$50,000 and over	22.2	28.9	31.6	34.8
$50,000 to $74,999	(NA)	(NA)	(NA)	21.4
$75,000 and over	(NA)	(NA)	(NA)	13.4
Median income (dollars)	33,400	37,300	38,700	41,000
Education: college graduates (percent)	54.5	57.6	56.0	56.6
Using travel agent (percent)	79.6	79.0	78.7	80.2
Islands visited (percent):				
Oahu only	26.6	27.2	29.2	29.0
Hawaii	30.2	24.5	22.7	23.4
Maui	53.4	54.0	52.7	53.0
Kauai	34.6	33.0	27.3	27.0
Molokai	0.6	0.6	0.5	0.2
Hawaii compared with other vacation areas visited (percent)	100.0	100.0	100.0	100.0
Far superior	35.2	37.0	37.9	39.7
Above average	54.2	53.9	53.3	53.3
Average	9.4	8.3	7.8	6.4
Below average	1.0	0.7	0.8	0.6
Quite inferior	0.1	0.2	0.1	(Z)

NA Not available.
Z Less than 0.05 percent.
Source: Hawaii Visitors Bureau, Visitor Reaction Survey (annual summaries).

Table 210.-- CHARACTERISTICS OF JAPANESE VISITORS TO HAWAII: 1987

[Based on a sample of 1,776 Japanese overnight and longer visitors interviewed at Honolulu International Airport while awaiting departure]

Subject	Amount
Median age (years)	34.0
Female (percent)	55.7
Married (percent)	70.4
Attended college (percent)	54.2
Occupation:	
Professional, technical	24.0
Business, managerial, official	19.5
Household income (million yen)	5.3
Repeat visitors (percent)	32.1
Median length of stay (days)	5.8
Organized tour group/package (percent)	70.3
Average party size	2.5
Islands visited, including day trips (percent):	
Oahu	94.8
Maui	26.7
Kauai	18.4
Big Island	11.2
Molokai	1.4
Types of purchases (percent):	
Liquor	82.8
Candy	80.1
Clothing	65.2
Expenditure (dollars)	
Per person per day	366.63
Per party, entire trip	3,943

Source: Hawaii Visitors Bureau, Study of Japanese Visitors to Hawaii 1987 (March 1988).

Table 211.-- MEETINGS AND CONVENTIONS: 1982 TO 1987

Year	No. of meetings held	Estimated attendance	Estimated guest rooms	Estimated revenue ($1,000)
1982	439	167,558	78,589	123,748
1983	420	211,764	(NA)	156,396
1984	623	255,152	91,605	218,247
1985	740	247,166	104,354	219,882
1986	810	250,703	98,591	249,042
1987	903	317,101	126,181	300,721

NA Not available.

Source: Hawaii Visitors Bureau, Meetings and Conventions Department.

Table 212.-- MEETINGS AND CONVENTIONS, BY ISLANDS: 1986 AND 1987

Island	Number of meetings held		Estimated attendance	
	1986	1987	1986	1987
State total 1/	810	903	250,703	317,101
Hawaii:				
Hilo	7	15	1,187	4,446
Kona	76	91	18,248	22,646
Maui	268	248	48,859	48,356
Molokai	2	7	67	643
Oahu	404	485	171,893	227,304
Kauai	53	57	10,449	13,706

1/ Because some meetings took place on more than one island, detail does not add to indicated totals.

Source: Hawaii Visitors Bureau, Meetings and Conventions Department.

Table 213. -- RANKING AS A VACATION DESTINATION, BY MEASURE OF ATTRACTIVENESS: 1985

[Rank of Hawaii among 107 major vacation destinations in the U.S., based on the most recent available data]

Measure of attractiveness	Rank	Measure of attractiveness	Rank
Overall rank	3	Basic necessities	36
		Discovering our heritage	20
Blessings of nature	5	Feeding mind and spirit	24
Outdoor fun	3	Entertainment for all	55

Source: Sylvia McNair, Rand McNally Vacation Places Rated (Rand McNally and Company, 1986), p. 195.

Table 214.-- AVERAGE EXPENDITURE PER VISITOR DAY, BY ORIGIN OF VISITORS: 1931-1932 TO 1987

[Dollars]

Year	Mainlanders	Japanese	Year	Mainlanders	Japanese
1931-32 1/	17.50	(NA)	1977	54.62	146.85
1951	28.00	(NA)	1980	71.24	185.00
1960-61	32.00	(NA)	1983	85.88	227.32
1965-66 1/	37.23	(NA)	1986	95.40	(NA)
1974	46.20	123.00	1987	102.49	366.63

NA Not available.

1/ Oahu only.

Source: Hawaii Visitors Bureau, 1983 Visitor Expenditure Survey (1985), p. 31, 1987 Visitor Expenditure Survey (1988), p. 43, and Study of Japanese Visitors to Hawaii 1987 (March 1988), p. 28.

Table 215.-- EXPENDITURES PER VISITOR DAY BY WESTBOUND VISITORS, BY EXPENDITURE TYPE: 1986 AND 1987

[In dollars. Excludes transpacific travel costs]

Expenditure type	1986	1987 State-wide	1987 On Oahu	1987 On the Neighbor Islands
All items	95.40	102.49	99.05	125.58
Food and beverage	22.00	22.51	22.31	23.81
Restaurants	15.37	15.92	15.41	18.53
Dinner shows	2.28	2.39	2.87	1.01
Nightclubs	1.80	1.80	1.88	1.60
Groceries	2.55	2.40	2.15	2.67
Entertainment	7.74	7.00	6.96	7.62
Attractions	6.34	5.83	6.10	5.66
Other	1.40	1.17	0.86	1.96
Transportation	6.99	11.28	8.20	28.88
Ground transportation	1.01	0.80	0.85	0.67
U-drive	2.87	3.14	2.37	5.42
Interisland travel	1.90	4.48	1.92	18.87
Sightseeing tours	1.21	2.86	3.06	3.92
Clothing	8.06	8.28	8.95	6.43
Gifts and souvenirs	8.21	8.62	8.70	7.15
Lodging	36.60	38.47	37.62	45.37
All other	4.10	4.03	3.96	4.30
Adjustment 1/	1.70	2.30	2.35	2.02

1/ Estimated amount of underreporting for listed categories.

Source: Hawaii Visitors Bureau, 1987 Visitor Expenditure Survey (1988), pp. 11 and 13, as corrected.

Table 216.-- EXPENDITURES PER VISITOR DAY BY WESTBOUND VISITORS, BY VISITOR OR TRIP CHARACTERISTICS: 1987

Visitor or trip characteristics	Dollars
All westbound visitors	102.49
Group tour:	
Organized tour group	101.90
Individually arranged	103.23
Accommodations:	
Hotel only	104.60
Condo only	90.90
Guests of friends, relatives	43.57
Hotel/condo combination	97.48
Length of stay:	
1 to 6 days	117.71
7 to 12 days	100.94
13 to 18 days	105.72
19 days or longer	87.98
Residence: 1/	
Pacific	92.85
Mountain	97.22
W.N. Central	90.78
W.S. Central	107.82
E.N. Central	103.53
E.S. Central	108.80
New England	124.82
Mid Atlantic	114.61
S. Atlantic	102.78
Canada	*74.97
Other foreign	*122.13
Previous visits:	
First trip	102.99
Repeat visitors	101.30
Party size:	
1 person	132.99
2 persons	98.26
3 persons	97.08
4 persons or more	77.72
Purpose of trip:	
Pleasure	102.87
Business	*131.50
Business/pleasure	*87.82
Government/military	*70.47
Visiting relatives	76.70
Convention	*140.57
Other	*119.48
Time of year:	
First quarter	95.50
Second quarter	95.53
Third quarter	110.00
Fourth quarter	108.90
Children in party:	
Yes	82.66
No	103.82

* Sample under 25; subject to considerable sampling variation.

1/ Census divisions; see source, p. 6.

Source: Hawaii Visitors Bureau, 1987 Visitor Expenditure Survey (1988), pp. 15-35.

Table 217.-- PER DIEM COST OF BUSINESS TRAVEL TO HONOLULU: 1987

[Average daily expenditure of a business traveler for lodging, food, and car rental in the Honolulu Metropolitan Statistical Area]

Item	Amount (dollars)	Percent of U.S. average 1/	Rank 1/
Total per diem cost	171.96	109.1	20
Food	2/ 61.46	132.7	3
Lodging	64.50	101.3	36
Car rental	46.00	96.5	66

NA Not available.

1/ Based on the 100 leading business travel MSAs in the U.S.

2/ Breakfast, $10.81; lunch, $14.03; dinner, $26.76; tax and 15 percent tip, $9.86.

Source: "1988 Corporate Travel Index," Corporate Travel, April 1988, pp. 30-43 and underlying data, as corrected.

Table 218.-- ESTIMATED EXPENDITURES BY JAPANESE VISITORS TO HAWAII: 1980 TO 1987

Year	Japanese visitors (1,000)	Japanese visitor expenditures (million dollars)	Japanese as percent of total	
			Visitors	Visitor expenditures
1980	658	527	16.7	18.3
1981	690	696	17.5	21.8
1982	715	788	16.9	21.3
1983	729	862	16.7	21.7
1984	816	957	16.8	20.9
1985	855	1,031	17.5	21.0
1986	944	1,694	16.8	30.8
1987 1/	1,161	2,000	20.0	31.2

1/ Preliminary.

Source: Hawaii Visitors Bureau, Study of Japanese Visitors to Hawaii 1987 (March 1988).

Table 219.-- ESTIMATED EXPENDITURES BY VISITORS TO HAWAII, BY COUNTIES: 1970 TO 1987

[Millions of dollars. Interisland air fares have been distributed on a prorata basis. Expenditures by eastbound visitors have been included with the City and County of Honolulu. Excludes expenditures by Hawaii residents]

Year	State total	City and County of Honolulu	Other counties			
			Total	Hawaii	Kauai	Maui
1970	595	442	153.0	53.4	45.1	54.5
1971	705	507	198.0	67.7	56.1	74.2
1972	840	609	231.0	77.0	61.9	92.1
1973	1,020	777	243.0	81.9	63.2	97.9
1974	1,225	928	297.5	99.3	73.9	124.3
1975	1,360	1,004	355.9	114.6	87.2	154.1
1976	1,640	1,213	427.2	126.8	101.8	198.6
1977	1,845	1,377	468.5	131.2	109.9	227.4
1978	2,146	1,569	577.0	152.9	137.9	286.9
1979	2,537	1,867	669.8	162.0	159.1	348.7
1980	2,875	2,097	777.5	187.6	189.3	400.6
1981	3,200	2,394	805.9	179.2	197.3	429.4
1982	3,700	2,748	951.8	200.9	210.6	540.3
1983	3,974	2,653	1,320.9	277.2	250.8	792.9
1984 1/ ...	4,582	2,895	1,686.6	248.9	359.4	1,078.3
1985 1/ ...	4,884	3,084	1,799.5	285.9	407.9	1,105.7
1986 1/ ...	5,500	3,444	2,056.2	343.8	516.9	1,195.5
1987 1/ ...	6,600	4,370	2,229.6	381.8	580.1	1,267.7

1/ Preliminary estimate.

Source: Hawaii Visitors Bureau, "Neighbor Island Statistics," tabular release dated March 1988.

Table 220.-- ESTIMATED DIRECT VISITOR-RELATED EXPENDITURES: 1970 TO 1987

[In millions of dollars]

Year	Total	Visitors	Airline and ship crews	Overseas airlines 1/
1970	714.6	595	8.0	111.6
1971	835.8	705	8.0	122.8
1972	982.2	840	9.0	133.2
1973	1,181.6	1,020	8.0	153.6
1974	1,408.6	1,225	12.6	171.0
1975	1,559.4	1,360	8.4	191.0
1976	1,890.8	1,640	6.8	244.0
1977	2,093.8	1,845	7.8	241.0
1978	2,427.4	2,146	11.4	270.0
1979	2,947.7	2,537	11.6	399.1
1980	3,406.2	2,875	13.2	518.0
1981	3,775.0	3,200	15.0	560.0
1982	4,235.0	3,700	15.0	520.0
1983	4,483.0	3,974	14.0	495.0
1984	5,139.0	4,582	15.0	542.0
1985	5,458.0	4,900	16.0	542.0
1986	6,110.0	5,550	18.0	542.0
1987	7,250.0	6,600	20.0	630.0

1/ Includes payroll, fuel taxes, and landing fees.

Source: Hawaii State Department of Planning and Economic Development, The Economic Impact of Tourism in Hawaii: 1970 to 1980, Research Report 1983-2 (April 1983), and unpublished 1981-1987 estimates based on the DBED Input-Output Model.

Table 221.-- ECONOMIC ACTIVITY GENERATED BY VISITOR-RELATED EXPENDITURES: 1970 TO 1987

Year	Visitor-related expenditures 1/ (million dollars)	Total sales or output 2/ (million dollars)	Household income (million dollars)	State and county tax revenues (million dollars)	Jobs 2/ (1,000)
1970	714.6	1,290.8	459.7	69.7	76.6
1971	835.8	1,507.0	538.6	82.8	87.3
1972	982.2	1,766.2	633.6	96.7	96.2
1973	1,181.6	2,122.0	763.5	118.7	105.6
1974	1,408.6	2,522.3	910.7	141.0	112.8
1975	1,559.4	2,751.7	995.9	165.7	113.5
1976	1,890.8	3,263.0	1,184.0	201.4	123.1
1977	2,093.8	3,642.9	1,324.9	225.0	127.3
1978	2,427.4	4,238.7	1,544.2	262.1	132.4
1979	2,947.7	5,005.0	1,826.8	316.7	143.3
1980	3,406.2	5,719.5	2,091.0	353.0	150.0
1981	3,775.0	6,265.2	2,294.1	390.1	154.4
1982	4,235.0	7,162.3	2,627.1	436.9	165.4
1983	4,483.0	7,587.9	2,788.9	461.6	166.2
1984	5,139.0	8,655.9	3,185.6	537.0	180.7
1985	5,458.0	9,210.9	3,390.2	578.8	186.5
1986	6,110.0	10,263.7	3,782.5	657.2	196.3
1987	7,250.0	12,028.3	4,455.2	3/ 831.0	213.3

1/ Direct expenditures by visitors, airline and ship crews, and overseas airlines.

2/ Direct, indirect, and induced.

3/ Partly reflects visitor accommodations tax enacted in 1986 and effective January 1, 1987.

Source: Hawaii State Department of Planning and Economic Development, *The Economic Impact of Tourism in Hawaii: 1970 to 1980*, Research Report 1983-2 (April 1983), and revised 1970-1987 estimates based on the DBED Input-Output Model.

Table 222.-- ECONOMIC ACTIVITY GENERATED BY VISITOR-RELATED EXPENDITURES, BY INDUSTRY: 1987

Year and industry	Direct visitor-related expenditures 1/ (million dollars)	Total sales or output 2/ (million dollars)	Total household income (million dollars)	Jobs (1,000)	
				Total 3/	Direct only
All industries	7,250.0	12,028.3	4,455.2	213.3	118.5
Agriculture	39.3	86.8	38.5	0.6	0.3
Textile and apparel mfg.	67.3	119.2	41.1	3.2	1.9
Other manufacturing	199.7	391.4	103.8	6.2	2.0
Air transportation	537.3	945.6	306.3	14.8	6.6
Other transportation	207.9	428.3	164.3	3.9	2.0
Wholesale trade 4/	173.9	366.9	158.2	7.4	3.6
Eating and drinking places ...	1,287.3	2,510.2	759.5	48.9	28.5
Other retail trade 4/	687.7	1,478.5	687.7	38.8	25.4
Hotel services and real estate	2,088.0	4,656.3	1,774.8	63.7	33.0
Other services	507.3	1,045.1	421.1	25.7	15.3
Imports	1,454.3	-	-	-	-

1/ Direct expenditures by visitors, airline and ship crews, and overseas airlines.

2/ Direct, indirect, and induced sales.

3/ Direct, indirect and induced jobs.

4/ Expenditure figure refers to mark-up earned, not total sales revenue.

Source: Hawaii State Department of Business and Economic Development, unpublished estimates based on the DBED Input-Output Model.

Table 223.-- VISITOR INDUSTRY PRICES, PRICE DEFLATOR, AND PRICE INDEXES: 1968 TO 1987

Year	Implicit price deflator 1/ (1982=100)	Average daily room rate 2/ (dollars)	1-way air fares (dollars)		Honolulu consumer price index 5/ (1982-84=100)		
			San Francisco-Honolulu 3/	Honolulu-Kahului 4/	Eating out	Apparel, upkeep	All items
1968 ..	38.7	23.85	110.03	13.65	33.2	50.7	37.7
1969 ..	40.7	23.98	110.03	15.75	35.6	53.4	39.4
1970 ..	45.2	25.74	97.30	19.00	38.6	56.2	41.5
1971 ..	46.1	24.28	111.35	19.00	40.4	57.4	43.2
1972 ..	47.1	21.83	111.35	19.00	41.7	58.9	44.6
1973 ..	48.9	23.64	110.63	19.64	44.3	60.6	46.6
1974 ..	53.0	26.56	126.64	20.64	49.9	65.1	51.5
1975 ..	58.3	29.75	126.64	21.38	56.9	69.0	56.3
1976 ..	62.5	29.54	126.64	23.00	61.5	71.6	59.1
1977 ..	67.5	34.28	132.05	25.00	65.1	74.3	62.1
1978 ..	73.6	38.49	129.05	27.00	69.7	78.8	66.9
1979 ..	81.0	44.41	141.05	29.00	75.2	83.9	74.3
1980 ..	88.9	47.28	211.08	41.00	81.0	89.8	83.0
1981 ..	95.8	49.73	296.09	51.00	88.5	94.5	91.7
1982 ..	100.0	51.78	328.10	48.00	95.5	98.4	97.2
1983 ..	104.4	54.78	353.14	49.95	100.1	101.4	99.3
1984 ..	108.9	59.25	353.14	49.95	104.5	100.2	103.5
1985 ..	116.5	68.84	364.00	44.95	108.6	99.6	106.8
1986 ..	p119.5	73.20	364.00	46.95	111.4	99.8	109.4
1987 ..	p125.0	80.09	486.00	48.95	115.4	102.5	114.9

P Preliminary.

1/ For visitor and crew expenditures. From DBED, Hawaii Gross State Product Accounts: 1958-1988 (1988), table 1-5 and underlying data.

2/ From Pannell Kerr Forster, Trends in the Hotel Industry, Hawaii (monthly).

3/ Coach or Economy weekday fare, including taxes, as of July 1, by Pan American World Airways through 1979 and United Airlines thereafter. From air fare chronology published in DPED, Statistical Report 103, and Data Book, 1979-1988.

4/ Regular fare, including taxes, as of July 1, by Hawaiian Airlines. From chronology published in DPED, Statistical Report 103, and Data Book, 1979-1988.

5/ Honolulu CPI for all urban consumers, from U.S. Bureau of Labor Statistics computer tape tabulated by DBED.

Source: See above footnotes.

Table 224.-- HAWAII VISITORS BUREAU INCOME AND EXPENDITURES: 1982 TO 1987

[In dollars. Years ended June 30]

Year	Income				Expenditures
	Total	State appropriations 1/	Private subscriptions	Other 2/	
1982	4,431,673	3,197,785	1,033,486	200,402	4,448,871
1983	4,484,734	3,216,000	966,146	302,588	4,485,156
1984	4,384,978	2,706,732	1,108,374	569,872	4,384,264
1985	5,345,724	4,009,391	1,125,914	210,419	5,347,648
1986	6,657,841	5,169,391	1,200,112	288,338	6,657,704
1987	8,652,826	7,069,391	1,242,111	341,324	8,652,487

1/ Net after refunds (if any) to the State.

2/ May include income from Federal grants, mainland promotional programs, literature sales, convention servicing, and interest.

Source: Peat, Marwick, Mitchell & Co., Hawaii Visitors Bureau, Financial Statements and Schedules (annual).

Table 225.-- PASSPORTS ISSUED, BY FIRST AREA DESTINATION: 1983 TO 1987

Category and first area destination	1983	1984	1985	1986	1987
By Honolulu Passport Agency 1/	41,446	52,250	56,140	43,731	47,979
To Hawaii residents, total 2/	30,040	(NA)	(NA)	(NA)	(NA)
Europe	15,720	(NA)	(NA)	(NA)	(NA)
Far East	7,250	(NA)	(NA)	(NA)	(NA)
Australia and Oceania	5,580	(NA)	(NA)	(NA)	(NA)
All other areas	1,490	(NA)	(NA)	(NA)	(NA)

NA Not available.

1/ Includes passports issued to nonresidents of Hawaii.

2/ Includes passports issued to Hawaii residents by out of State offices. These tabulations were discontinued after 1983.

Source: U.S. Department of State, Honolulu Passport Office, records.

Table 226.-- CHARACTERISTICS OF RESIDENTS RETURNING FROM THE MAINLAND: 1982 TO 1987

Year	Number returning	Oahu residents 1/ (percent)	Median age (years)	Males per 100 females	Persons per party
1982	290,040	84.8	36.7	100.9	1.45
1983	236,725	84.7	36.5	102.2	1.45
1984	333,640	82.8	38.2	100.4	1.43
1985	403,450	82.1	39.2	100.5	1.43
1986	411,440	79.9	39.7	98.8	1.45
1987	398,580	79.6	41.7	96.4	1.45

Year	Party heads with high-status occupations 2/ as percent of--		Days absent		Average number absent 3/
	All party heads	Employed civilian party heads	Median	Mean	
1982	52.6	78.6	13.3	18.1	14,400
1983	51.3	78.4	12.8	17.2	11,200
1984	53.6	80.1	12.5	16.1	14,700
1985	56.2	82.0	12.2	15.3	16,900
1986	55.2	80.6	11.0	14.0	15,735
1987	56.2	81.7	10.7	13.1	14,036

1/ Data for Oahu include persons specifying military bases rather than island of residence.

2/ Party heads reporting professional, technical, business, managerial, and official occupations.

3/ For persons absent 1 to 365 days.

Source: Hawaii State Department of Business and Economic Development, Out-of-State Travel by Hawaii Residents During 1986 (Statistical Report 202, September 22, 1987), table 2; and records.

Table 227.-- NUMBER OF WESTBOUND RETURNING RESIDENTS AND AVERAGE ABSENCE-DAYS, BY PORT OF DEPARTURE: 1987

Port of departure	Number returning	Reporting absence of 1-90 days 1/	
		Persons	Average absence (days)
All returning residents	398,580	390,573	13.0
Los Angeles	102,377	100,211	13.4
San Francisco	100,182	98,635	12.9
Other/Los Angeles 2/	41,845	40,942	12.7
New York/Los Angeles	28,485	27,938	14.3
Las Vegas	28,860	27,927	4.9
Chicago	16,904	16,618	15.1
Seattle	22,785	22,325	14.6
Dallas	11,891	11,626	14.8
Other	45,251	44,351	14.8

1/ Excludes over 90 days or not reported.

2/ Includes other connecting flights through Los Angeles to Hawaii.

Source: Hawaii State Department of Business and Economic Development, special tabulation from Hawaii Visitors Bureau data.

Table 228.-- INTERISLAND, MAINLAND, AND FOREIGN ROUND TRIPS BY ADULT HAWAII RESIDENTS DURING THE PAST 12 MONTHS: MAY 12-19, 1988

Number of trips	Percent of residents
INTERISLAND TRIPS	
All adult residents	100
None	42
1 or 2	30
3 to 5	14
6 to 10	9
11 or more	5
Average number of trips	3.3
MAINLAND ROUND TRIPS	
All adult residents	100
None	49
1	27
2 to 5	21
6 or more	3
Average number of trips	1.1
FOREIGN ROUND TRIPS	
All adult residents	100
None	83
1	11
2 or more	6
Average number of trips	0.3

Source: Omnitrak Research and Marketing Group, Inc., survey of 600 adult residents cited in Honolulu Star-Bulletin, May 31, 1988, p. C-1, June 7, 1988, p. C-1, and June 14, 1988, p. B-1.

Table 229.-- ATTENDANCE AT MUSEUMS AND OTHER CULTURAL ATTRACTIONS: 1985 TO 1987

[Calendar year data unless otherwise specified. Some 1985 and 1986 data have been revised]

Island and cultural attraction	1985	1986	1987
State total	14,648,033	15,253,063	17,771,900
Oahu	12,103,468	12,537,400	12,984,268
Bernice P. Bishop Museum 1/	257,760	278,083	246,113
Contemporary Arts Center	27,000	25,500	26,700
Damien Museum and Archives 2/	-	10,618	8,814
Dole Cannery tours 3/	138,860	154,964	160,000
Foster Botanic Garden	61,676	62,472	59,352
Fred Ohrt Museum	3,880	3,593	5,221
Hawaii Maritime Center 4/	45,000	105,000	100,000
Honolulu Academy of Arts 5/	274,950	280,842	258,789
Honolulu Zoo	782,866	801,418	758,485
Hoomaluhia Park	42,696	49,278	55,265
Iolani Palace State Monument 1/	71,000	72,000	76,000
Kodak Hula Show	460,000	(NA)	(NA)
Mission Houses Museum 6/	14,100	16,000	18,221
Mormon Temple Grounds (Church of Jesus Christ of Latter-Day Saints, Hawaii Temple Visitor's Center)	240,065	216,995	239,698
National Memorial Cemetery of the Pacific	4,453,063	5,122,003	5,343,973
Pacific Submarine Museum 7/	45,000	40,000	20,000
Paradise Cove	242,239	239,767	307,603
Paradise Park	272,592	225,153	258,208
Polynesian Cultural Center	1,029,000	870,000	1,001,708
Puu o Mahuka Heiau State Monument 1/	11,000	11,000	9,000
Queen Emma Summer Palace	16,732	26,298	18,209
Royal Mausoleum State Monument 1/	74,000	76,000	77,000
Sea Life Park	655,000	684,530	758,978
Tennent Art Foundation Gallery	3,000	(NA)	(NA)
Tropic Lightning Museum	8,700	9,100	7,000
Ulu Po Heiau State Monument 1/	6,000	5,000	4,000
U.S. Army Museum, Ft. DeRussy	143,390	109,711	91,341
U.S.S. Arizona Memorial	1,629,660	1,809,080	1,845,557
Visiting either Memorial or Visitor Center	1,336,992	1,435,885	1,522,635
Aboard non-landing tour boats	292,668	373,195	322,922
U.S.S. Bowfin WWII Submarine Exhibit 8/	254,053	284,202	206,610
Wahiawa Botanic Garden	18,711	17,245	17,369
Waikiki Aquarium 9/	322,796	330,071	332,219
Waimea Falls Park	498,679	601,477	672,835

Continued on next page.

Table 229.-- ATTENDANCE AT MUSEUMS AND OTHER CULTURAL ATTRACTIONS: 1985 TO 1987 -- Con.

Island and cultural attraction	1985	1986	1987
Hawaii	1,131,231	1,309,761	3,513,157
Hawaii Tropical Botanical Gardens	20,000	32,000	34,000
Greenwell Store Museum	2,500	5,000	5,100
Hulihee Palace	21,469	21,350	24,635
Jagger Museum 10/	-	-	1,373,000
Kamuela Museum	16,000	16,000	(NA)
Kealakekua Bay State Historical Park 1/	26,000	36,000	57,000
Kilauea Visitor Center	911,300	1,055,000	1,310,000
Lapakahi State Historical Park 1/	73,000	71,000	65,000
Lyman House Memorial Museum 11/	21,013	20,199	15,252
Panaewa Rainforest Zoo	39,949	53,212	67,170
Wahaula Visitor Center	(NA)	(NA)	562,000
Maui	887,670	888,498	774,740
Alexander & Baldwin Sugar Museum 12/	-	-	5,406
Halekii-Pihana Heiaus State Monument 1/	57,000	50,000	22,000
Kula Botanical Gardens	21,995	22,540	18,150
Lahaina Restoration Foundation	162,988	167,724	179,878
Baldwin Home Museum	43,414	43,454	47,400
Brig *Carthaginian*	73,201	76,835	78,278
Hale Pa'i	8,461	7,615	6,500
Kalaupapa Lighthouse Exhibit 13/	-	-	11,500
Wo Hing Temple	37,912	39,820	36,200
Maui Historical Society Museum	15,687	18,234	18,306
Maui Plantation	550,000	550,000	451,000
Maui Zoological & Botanical Gardens	80,000	80,000	80,000
Kauai	509,152	502,638	486,528
Coco Palms Zoo	5,423	6,142	6,142
Grove Farm Homestead	4,664	4,901	4,379
Hanalei Museum	6,500	6,500	6,500
Haraguchi Rice Mill Museum 14/	-	-	-
Kauai Museum 15/	20,248	25,345	28,748
Kokee Natural History Museum	83,424	83,485	83,979
Olu Pua Gardens	4,800	6,696	(NA)
Pacific Tropical Botanical Garden	5,229	6,899	10,500
Russian Fort Elizabeth State Historical Park 16/	375,000	359,000	343,000
Waioli Mission House	3,864	3,670	3,280
Molokai	16,512	14,766	13,207
Kalaupapa Settlement	12,012	6,737	8,395
Molokai Ranch Wildlife Park 17/	4,500	8,029	4,812

Footnotes and source on next page.

Table 229.-- ATTENDANCE AT MUSEUMS AND OTHER CULTURAL ATTRACTIONS: 1984 TO 1986 -- Con.

NA Not available.
1/ Years ended June 30.
2/ Closed most of 1985; reopened February 11, 1986.
3/ 1985 figure refers to year ended June 30.
4/ Includes *Falls of Clyde* (55,000 in 1987) and Aloha Tower Maritime Museum (45,000 in 1987).
5/ Includes Academy Theatre (81,617 in 1985, 85,697 in 1986, and 82,135 in 1987).
6/ Years ended September 30.
7/ Closed at end of May 1987.
8/ Closed March 2-April 6, 1987 and April 23-June 19, 1987.
9/ Includes both adult (236,912 in 1987) and child (95,307) attendance.
10/ Opened January 13, 1987.
11/ Plus 1,987 in outreach programs in 1987.
12/ Opened July 15, 1987.
13/ Opened April 1987.
14/ To open officially in 1988.
15/ Years ended September 30, 1987 and December 31, 1986 and 1985.
16/ Years ended June 30. Attendance estimates reflect heavy use of restrooms by tour bus passengers.
17/ Closed part of 1987 for maintenance.
Source follows next table.

Table 230.-- ATTENDANCE AT MUSEUMS AND OTHER CULTURAL ATTRACTIONS: 1982 TO 1987

[Revised from *Data Book 1987*, table 239, to include zoos (previously omitted) and corrected data for several attractions]

Subject	1982	1983	1984	1985	1986	1987
Number of attractions 1/	52	54	60	60	59	61
Attendance (1,000)	13,734	13,733	13,674	14,648	15,253	17,772

1/ Lahaina Restoration Foundation attractions are counted separately.
Source: Hawaii State Department of Business and Economic Development, *Attendance at Cultural Attractions, 1987* (Statistical Report 209, September 1988), as revised.

Table 231.-- HONOLULU SYMPHONY ORCHESTRA: 1977-1978 TO 1987-1988

Season	Average number of orchestra personnel	Number of performances	Total attendance	Operating expenses (dollars)
1977-1978	75	109	194,474	1,980,720
1978-1979	75	118	192,413	2,398,020
1979-1980	75	122	186,135	2,189,172
1980-1981	80	107	155,622	2,211,082
1981-1982	80	109	168,900	2,627,293
1982-1983	80	142	204,193	2,817,196
1983-1984	80	133	194,600	2,562,500
1984-1985	80	120	167,500	2,966,700
1985-1986	80	137	208,370	3,053,257
1986-1987 1/ ..	80	85	139,703	2,394,804
1987-1988	79	127	184,897	4,143,347

1/ Season shortened by musicians' strike, Aug. 8-Nov. 26, 1986.
Source: Honolulu Symphony Society, records.

Table 232.-- PERFORMING ARTS STATISTICAL SUMMARY, FOR OAHU: 1977-1978 TO 1986-1987 SEASONS

Season	Number of groups reporting	Productions	Performances	Attendance
1977-1978	12	254	1,513	850,802
1978-1979	12	219	1,024	766,018
1979-1980	12	183	1,178	723,581
1980-1981	13	254	1,128	830,585
1981-1982	12	500	1,300	804,647
1982-1983	13	502	1,376	936,821
1983-1984	13	695	1,734	1,060,367
1984-1985	12	773	1,809	1,086,930
1985-1986	12	353	1,245	845,328
1986-1987	12	439	1,354	875,063

Source: DBED mail and telephone surveys.

Table 233.-- PERFORMING ARTS, FOR OAHU: 1986-1987 SEASON

Name of organization and type of performance	Productions	Performances	Attendance
All reporting groups	439	1,354	875,063
Brigham Young University - Hawaii Campus	17	28	8,043
Chaminade University of Honolulu	2	9	711
Hawaii Loa College	2	8	560
Hawaii Performing Arts Company	7	108	11,296
Honolulu Community Theatre	8	102	52,000
Honolulu Department of Auditoriums, total	113	157	412,973
Ballets	3	4	5,534
Concerts	63	75	205,546
Operas	3	9	15,229
Rock shows	12	14	83,603
Other dramatic and musical productions	32	55	103,061
Honolulu Theatre for Youth	7	292	134,138
Leeward Community College	56	187	73,720
The Starving Artists' Theatre Company	6	72	9,000
U.S. Army Support Command, total 1/	199	262	121,514
Plays, musicals and workshops	6	36	6,660
Showmobile activities	38	40	56,684
DOD/USO touring shows	9	40	15,443
Soldier bands and jam sessions	144	144	7,727
Special events	2	2	35,000
University of Hawaii at Manoa	19	109	43,864
Windward Theater Guild	3	20	7,244

1/ Year ended September 30, 1987.
Source: DBED mail and telephone survey.

Table 234.-- RECREATIONAL FACILITIES AND RESOURCES, BY COUNTIES: 1985

Recreation area/facility	State total	Kauai	Honolulu	Maui	Hawaii
Recreation area:					
Total acreage	1,572,891	137,192	59,400	249,656	1,126,643
Unimproved acreage	1,563,753	136,274	53,527	248,898	1,125,055
Improved acreage	9,138	918	5,873	758	1,588
Passive	3,334	275	2,057	254	747
Active	5,033	611	3,259	437	726
Service	772	32	558	67	115
Aquatic:					
Boat launch lanes	79	10	37	10	22
Boat moorages	2,750	95	2,053	254	348
Swimming pools	77	6	58	6	7
Beach acreage	490	101	306	49	34
Beach length (miles)	56	11	34	6	5
Wild shoreline (miles)	39	1	1	2	35
Nonstructured/land based:					
Camping sites	2,065	339	499	403	824
Public hunting (acres)	1,282,458	102,517	26,032	192,804	961,105
Court, courses fields, and playgrounds:					
Golf courses (holes)	1,038	144	441	219	234
Tennis courts	638	100	360	75	103
Sport fields	453	51	324	46	32
Sport courts	683	38	551	43	51
Trails:					
Hiking/equestrian (miles)	1,112	206	78	167	661
Bikeways (miles)	66	1	38	27	0

Source: Hawaii State Department of Land and Natural Resources, State Recreation Functional Plan Technical Reference Document and State Comprehensive Outdoor Recreation Plan (SCORP) (December 1985), p. 27.

Table 235.-- PEAK-DAY RESIDENT AND VISITOR PARTICIPATION IN SPECIFIED RECREATION ACTIVITIES: 1980

[Based on a survey conducted in the late summer of 1978 and projections of resident population and average visitor census for 1980. The data refer to the day of the week on which the greatest combined participation by residents and visitors occurs for the specified activity]

Activity	Activity occasions 1/		Percentage participation	
	State total	Oahu only	Residents	Visitors
All activities	986,430	737,417	--	--
Walking	240,434	191,201	23	31
Jogging	73,068	62,181	9	2
Hiking	15,709	10,413	2	2
Camping	20,809	16,130	3	1
Group camping	3,804	913	0	0
Picnicking	84,716	58,447	10	3
Hunting	1,502	234	0	0
Golf	15,681	11,714	2	2
Swimming or sunbathing ..	171,525	123,616	16	26
Diving	20,875	13,483	2	3
Surfing	22,608	15,587	2	3
Boating	18,563	13,547	3	3
Canoe paddling	3,233	1,786	0	0
Fishing	24,875	17,322	3	1
Field games	32,404	27,065	4	0
Court games	19,070	15,891	2	0
Playground equipment	14,928	11,175	2	0
Tennis	18,106	12,749	2	2
Outdoor events	19,071	15,562	2	3
Bicycling	74,909	54,403	9	0
Motorcycling	8,722	6,719	1	1
Other activities	22,606	18,008	3	0
Sightseeing	59,212	39,271	3	18

1/ An activity occasion is a peak-day participation in that activity by a member of a resident household or visitor party.

Source: Hawaii State Department of Land and Natural Resources, State Recreation Functional Plan, Technical Reference Document and State Comprehensive Outdoor Recreation Plan (SCORP), (December 1985), pp. 32-34.

Table 236.-- NATIONAL PARKS: 1977 TO 1987

Year and area	Acreage, Dec. 31 1/ Total	Federal	Non-federal	Visits 2/
1977	235,274	235,208	66	2,932,555
1978	236,574	235,208	1,366	3,572,504
1979	236,574	235,208	1,366	3,384,343
1980	247,488	235,243	12,245	3,479,797
1981	247,488	235,243	12,245	4,225,217
1982	247,488	235,243	12,245	4,950,621
1983	247,349	235,243	12,106	5,252,385
1984	247,349	235,243	12,106	5,429,289
1985	247,349	235,243	12,106	4,029,929
1986	247,349	235,565	11,784	4,736,281
1987	247,349	235,565	11,784	5,225,641
AREAS: 1987				
Hawaii Volcanoes National Park	207,643	207,643	-	1,872,595
Haleakala National Park	27,350	27,350	-	1,359,886
Puuhonua o Honaunau National Historical Park	181	181	-	415,580
Kaloko-Honokohau National Historical Park	1,161	322	839	(3/)
Puukohola Heiau National Historic Site	100	34	66	54,945
U.S.S. Arizona Memorial 4/	12	12	-	1,522,635
Kalaupapa National Historical Park	10,902	23	10,879	(NA)

NA Not available.

1/ Data exclude the Olaa Forest Tract. This 9,654-acre tract is entirely in Federal ownership, is managed by the National Park Service, and has been designated as part of the wilderness system by the Congress, but it is not within the legally authorized boundary of Hawaii Volcanoes National Park.

2/ Decline in 1985 reflects use of new benchmark data for Hawaii Volcanoes National Park estimates, rather than an actual drop in visits.

3/ Not yet open to the public.

4/ The U.S.S. Arizona Memorial is wholly within the Pearl Harbor Naval Base. The acreage figure is the approximate extent of the total area over which the National Park Service has been granted use rights by the U.S. Navy.

Source: U.S. Department of the Interior, National Park Service, Pacific Area Office, records.

Table 237.-- STATE PARKS AND HISTORIC SITES: 1978 TO 1988

Year and island	Number of areas, June 30	Acreage, June 30		Recreation visits, year ended June 30 (1,000)
		Total	Developed	
1978	64	20,295	706.8	15,966
1979	65	20,625	880.0	17,911
1980	66	20,637	916.7	17,169
1981	71	20,836	937.8	15,611
1982	72	20,885	937.8	18,111
1983	74	20,564	980.1	17,246
1984	74	24,751	979.1	19,406
1985	74	24,799	882.1	19,908
1986	74	24,865	882.1	19,680
1987	76	24,909	883.6	20,068
1988	76	24,852	884.9	18,488
ISLANDS: 1987				
Hawaii	19	1,364.8	280.4	5,471
Maui	12	327.4	56.3	3,709
Molokai	1	233.7	10.0	184
Oahu	33	9,199.8	392.5	4,438
Kauai	11	13,783.7	142.9	6,266
ISLANDS: 1988				
Hawaii	19	1,379.4	281.6	5,088
Maui	12	320.6	55.8	2,428
Molokai	1	233.7	10.0	188
Oahu	33	9,131.0	394.5	4,007
Kauai	11	13,787.8	143.0	6,777

Source: Hawaii State Department of Land and Natural Resources, Division of State Parks, Outdoor Recreation and Historic Sites, records.

Table 238.-- MAJOR STATE PARKS: 1987 AND 1988

[Parks having at least 800,000 recreation visits or 1,000 acres]

Park	Acreage, June 30		Recreation visits, year ended June 30 (1,000)
	Total	Developed	
1987			
Wailua River State Park 1/	1,125.9	50.4	3,145
Hapuna Beach State Recreation Area	61.1	20.0	1,312
Nuuanu Pali State Wayside	2.5	2.5	1,172
Old Kona Airport State Recreation Area	117.8	20.4	1,020
Iao Valley State Monument	6.2	5.9	1,008
Waimea Canyon State Park	1,866.4	10.0	905
Kokee State Park	4,345.0	55.0	870
Wailuku River State Park	16.3	3.5	836
Sand Island State Recreation Area	140.0	83.0	832
Na Pali Coast State Park	6,175.0	4.0	62
Kahana Valley State Park	5,220.3	20.0	27
Sacred Falls State Park	1,374.2	10.0	21
1988			
Wailua River State Park 1/	1,125.9	50.4	2,599
Hapuna Beach State Recreation Area	68.8	20.7	1,246
Nuuanu Pali State Wayside	3.0	3.0	1,008
Kokee State Park	4,345.0	55.0	935
Waimea Canyon State Park	1,866.4	10.0	912
Wailuku River State Park	16.3	3.5	849
Na Pali Coast State Park	6,175.0	4.0	90
Kahana Valley State Park	5,220.3	20.0	18
Sacred Falls State Park	1,374.2	10.0	17

1/ Seven separate areas in both 1987 and 1988.

Source: Hawaii State Department of Land and Natural Resources, Division of State Parks, Outdoor Recreation, and Historic Sites, records.

Table 239.-- NATIONAL AND STATE HISTORIC SITES, BY ISLANDS: 1985

Island	Total sites 1/	Listed Hawaii Register only	Listed and recommended for National Register 2/	Listed National Register only	Listed both Hawaii and National Register	Eligible for Nat'l Register 3/
State total	376	90	40	92	119	37
Hawaii	87	36	2	18	23	9
Kauai	45	12	4	5	19	5
Kahoolawe .	1	-	-	1	-	-
Lanai	1	-	-	1	-	-
Maui	34	19	1	5	8	1
Molokai ...	55	14	14	2	24	2
Oahu	153	9	19	60	45	20

1/ Total sites listed in the source, as adjusted for appearance of some sites on more than one list.

2/ Sites placed on the Hawaii Register of Historic Places by the Historic Places Review Board but not yet approved by either the State Historical Preservation Officer or the National Historical Places Review Board.

3/ Sites declared eligible for National Register listing by the National Board.

Source: Hawaii State Department of Land and Natural Resources, State Parks, Outdoor Recreation, and Historic Sites Division, Hawaii Historic Places Review Board, Hawai'i/National Registers of Historic Places (February 1985).

Table 240.-- COUNTY PARKS, BY ISLANDS: 1982 TO 1987

[As of December 31]

Subject	1982	1983	1984	1985	1986	1987
Number, total	548	547	551	551	560	561
Hawaii	134	135	135	134	141	141
Maui	82	79	80	80	82	83
Lanai	2	3	3	3	3	3
Molokai	10	10	11	11	11	12
Oahu	264	264	266	266	266	265
Kauai	56	56	56	57	57	57
Acreage, total	8,177	8,238	8,248	8,222	8,227	8,324
Hawaii	1,445	1,460	1,463	1,434	1,424	1,428
Maui	921	899	899	899	905	917
Lanai	5	7	7	7	7	7
Molokai	51	51	54	54	54	58
Oahu	5,235	5,238	5,242	5,242	5,251	5,328
Kauai	520	583	583	586	586	586

Source: Compiled by the Hawaii State Department of Business and Economic Development from data provided by County parks and recreation departments.

Table 241.-- ZOOS: 1985 TO 1987

Subject and zoo	1985	1986	1987
Species: 1/			
Coco Palms (Kauai)	6	8	16
Honolulu Zoo	278	289	223
Maui Zoological & Botanical Gardens .	40	38	56
Molokai Ranch Wildlife Park	9	7	8
Panaewa Rainforest Zoo (Hilo)	53	53	54
Individuals: 1/			
Coco Palms (Kauai)	68	68	57
Honolulu Zoo	1,071	1,037	852
Maui Zoological & Botanical Gardens .	152	147	163
Molokai Ranch Wildlife Park	504	855	933
Panaewa Rainforest Zoo (Hilo)	182	160	171
Attendance:			
Coco Palms (Kauai)	5,423	6,142	6,142
Honolulu Zoo	782,866	801,418	758,485
Maui Zoological & Botanical Gardens .	80,000	80,000	80,000
Molokai Ranch Wildlife Park 2/	4,500	8,029	4,812
Panaewa Rainforest Zoo (Hilo)	39,949	53,212	67,170

1/ Animal and bird inventory, December 31.

2/ Decline in 1987 due to closing the park for maintenance and repairs.

Source: Data obtained by Hawaii State Department of Business and Economic Development from Coco Palms Resort Hotel, Molokai Ranch Wildlife Park, and the parks and recreation departments of the City and County of Honolulu and Counties of Hawaii and Maui.

Table 242.-- ATTENDANCE AND WATER SAFETY AT GUARDED BEACH PARKS, FOR THE CITY AND COUNTY OF HONOLULU: 1987 AND 1988

[Years ended June 30]

Subject	1987	1988
Approximate attendance, total 1/ (1,000) .	16,975	24,682
Ala Moana	1,397	2,008
Waikiki	6,319	16,098
Hanauma Bay	3,564	2,788
Sandy Beach	741	364
Kailua	648	397
Waimea Bay	860	551
Makaha	742	374
Pokai Bay	318	576
Rescues	1,899	953
First aid: Minor	21,861	41,889
Major	1,173	605
Drownings	10	6

1/ Based on headcounts taken at approximately two-hour intervals by Water Safety Officers over an 8-hour work day. Data shown separately for beach areas over 500,000 in either 1987 or 1988.

Source: City and County of Honolulu, Department of Parks and Recreation, Water Safety Division, records.

Table 243.-- COUNTY TENNIS FACILITIES: 1986 TO 1987

[As of December 31]

Subject	State total	Hawaii	Maui	Lanai	Molokai	Oahu	Kauai
Locations:							
1986	89	20	12	1	1	45	10
1987	90	20	12	1	1	46	10
Courts:							
1986	274	44	34	2	2	168	24
1987	278	44	34	2	2	172	24

Source: Compiled by the Hawaii State Department of Business and Economic Development from the County parks and recreation departments.

Table 244.-- COUNTY GOLF COURSES AND CAMPING PERMITS, FOR OAHU: 1982 TO 1987

Calendar year	Public golf courses			Camping permits issued 1/
	Courses	Holes	Rounds played	
1982	4	63	447,782	6,412
1983	4	63	494,610	7,462
1984	4	63	484,691	8,062
1985	4	63	484,594	6,937
1986	4	63	536,204	8,049
1987	4	63	548,668	8,352

1/ By the City and County of Honolulu.

Source: City and County of Honolulu, Department of Parks and Recreation, records.

Table 245.-- GOLF COURSES, BY NUMBER OF HOLES, OWNERSHIP, AND ISLANDS: MAY 1988

Status, island, and ownership	Number of golf courses					Number of holes
	Total	9-hole	18-hole	27-hole	36-hole	
IN OPERATION						
State total ...	56	11	43	1	1	936
Hawaii	11	2	8	1	-	189
Municipal	1	-	1	-	-	18
Private	10	2	7	1	-	171
Maui	10	1	9	-	-	171
Municipal	1	-	1	-	-	18
Private	9	1	8	-	-	153
Lanai	1	1	-	-	-	9
Private	1	1	-	-	-	9
Molokai	2	1	1	-	-	27
Private	2	1	1	-	-	27
Oahu	28	5	23	-	-	459
Military	9	3	6	-	-	135
Municipal	4	1	3	-	-	63
Private	15	1	14	-	-	261
Kauai	4	1	2	-	1	81
Municipal	1	-	1	-	-	18
Private	3	1	1	-	1	63
UNDER CONSTRUCTION						
Hawaii: Private 1/	2	-	2	-	-	36
Lanai: Private	1	-	1	-	-	18
Oahu	2	-	2	-	-	36
Municipal	1	-	1	-	-	18
Private	1	-	1	-	-	18
Kauai: Private	1	-	-	-	1	36

1/ Expansion of additional holes of existing 18-hole courses.

Source: Compiled by Hawaii State Department of Business and Economic Development from county departments of parks and recreation.

Table 246.-- HAWAIIAN OPEN SCORES AND PURSES: 1983 TO 1988

[The Hawaiian Open is held at the Waialae Country Club golf course. Distance is 6,975 yards; par is 72. For annual data back to 1965, see Data Book 1986, table 247]

Year	Winning score		Purse (dollars)	
	Total	Below par	Total	Winner
1983	268	20	325,000	58,000
1984	*271	17	500,000	90,000
1985	267	21	500,000	90,000
1986	272	16	500,000	90,000
1987	*270	18	600,000	108,000
1988	271	17	600,000	108,000

* Sudden-death playoff.

Source: Sunday Star-Bulletin and Advertiser, February 1, 1987, p. D-13; Honolulu Advertiser, February 9, 1987, p. F-1, and February 15, 1988, p. C-1.

Table 247.-- FISHING AND HUNTING LICENSES ISSUED: 1983 TO 1988

[Years ended June 30]

Type of license	1983	1984	1985	1986	1987	1988
Freshwater game fishing ..	8,720	9,866	7,131	8,200	8,669	10,512
Hunting	11,959	12,107	12,599	12,776	12,748	13,469

Source: Hawaii State Department of Land and Natural Resources, Division of Conservation and Resources Enforcement, records.

Table 248.-- PUBLIC HUNTING AREAS AND WILDLIFE SANCTUARIES AND REFUGES, BY ISLANDS: FEBRUARY 1988

Island	Public hunting areas		National Wildlife Refuges 1/		Other wildlife sanctuaries and refuges	
	Number	1,000 acres	Number	1,000 acres	Number	1,000 acres
State total	61	1,026.2	7	271.0	11	80.6
Hawaii	26	727.9	1	15.0	4	79.5
Maui	7	102.5	-	-	2	0.1
Lanai	1	35.6	-	-	-	-
Molokai	3	27.5	1	0.0	-	-
Oahu	13	26.0	2	0.2	5	0.7
Kauai	11	106.7	3	1.2	-	-
Other islands	-	-	1	254.6	(2/)	0.3

1/ U.S. Fish and Wildlife Service.

2/ The Hawaii State Seabird Sanctuary is comprised of 36 islets offshore all major islands, including Kure Atoll in the Northwestern Hawaiian Islands. This sanctuary is administered out of the Oahu District office.

Source: Hawaii State Department of Land and Natural Resources, Division of Forestry and Wildlife, records.

Table 249.-- WATER RECREATION FACILITIES AND RESOURCES, BY ISLANDS: 1987

Island	Small craft mooring facilities capacity 1/		Miles of sandy shoreline 2/		Number of surfing sites 3/
	Catwalks and piers	Other mooring areas	Total	Primary 4/	
Six major islands	1,365	662	184.9	24.4	1,600
Hawaii	29	279	19.4	1.2	185
Maui	53	146	32.6	7.9	212
Lanai	28	-	18.2	-	99
Molokai	3	29	23.2	-	180
Oahu	1,198	167	50.3	12.5	594
Kauai	54	41	41.2	2.8	330

1/ As of December 31, 1987.

2/ Surveyed in 1962.

3/ Surveyed in 1971. A surfing site is defined as "a specific wave-breaking zone caused by a shoal and having sufficient consistency to be identified as a surfable riding area, either seasonally or in a combination of seasons, e.g., Queen's Surf, Waikiki."

4/ Safe, clean, accessible, and generally suitable for swimming.

Source: Hawaii State Department of Transportation, Harbors Division, Small Craft Mooring Facilities Utilization Report (quarterly); Hawaii State Department of Planning and Economic Development, Hawaii's Shoreline (1965), p. 7; Surfing Education Association, The 1971 Statewide Surfing Site Survey, Vol. 1, p. 93.

Table 250.-- TRANSPACIFIC YACHT CLUB'S HONOLULU RACE ENTRIES AND WINNING TIMES: 1977 TO 1987

[The Honolulu Race, sponsored by the Transpacific Yacht Club of Los Angeles, is run biennially between San Pedro, California, and Diamond Head Lighthouse, a great circle distance of 2,217 nautical miles]

Year	Boats entered	Winning times (days, hours, minutes, seconds)	
		Elapsed	Corrected
1977	66	8:11:01:45	8:11:29:24
1979	80	11:18:01:04	11:14:42:51
1981	70	8:11:02:31	7:21:44:48
1983 1/ ...	66	9:01:53:48	7:22:55:15
1985	65	13:06:31:19	9:14:07:40
1987	55	8:12:00:40	8:00:56:41

1/ A catamaran, not officially entered in the race, recorded an elapsed time of 7:7:30:56.

Source: Jack Smock, Transpac, A History of the Great Race to Honolulu ... (1980), pp. 470, 497-498, 521-522, 552, and 669; The Transpacific Yacht Club, 1982-83 Transpacific Yacht Club Year Book (1983); Honolulu Advertiser, July 12, 1983, p. B-1, July 4, 1985, p. E-3, and July 19, 1985, p. G-3; Honolulu Star-Bulletin, July 15, 1983, p. C-3; Sunday Star-Bulletin and Advertiser, July 10, 1983, p. F-1; Waikiki Yacht Club, records.

Table 251.-- YACHT RACING EXPENDITURES IN HAWAII, FOR MAJOR RACES: 1984 AND 1985

[$1,000. All four races are sailed at biennial intervals]

Category	2-year total	Trans-pac: 1985 1/	Victoria-Maui: 1984 2/	Kenwood Cup: 1984 3/	Pacific Cup: 1984 4/
Total expenditures	10,909	2,365	2,237	13,264	1,043
Direct expenditures	10,867	1,359	1,286	7,623	599
Administrative costs	639	15	12	607	5
Yacht services 5/	1,345	259	97	926	62
Miscellaneous expend. 6/ .	8,883	1,085	1,176	6,090	532
Indirect expenditures 7/ ...	8,042	1,006	951	5,641	444

1/ Transpacific Yacht Race, Los Angeles to Honolulu. First sailed 1906.

2/ Victoria, B.C., to Lahaina, Maui. First sailed 1965.

3/ Around the State. First sailed, as Royal Hawaiian Cup, in 1972; as Clipper Cup, 1978; as Hawaii International Ocean Racing Series (Kenwood Cup) after 1984.

4/ San Francisco to Nawiliwili, Kauai. First sailed 1980.

5/ Provisions, yacht delivery, etc.

6/ By crew members, family members, and associates.

7/ Secondary and tertiary effects that the races have on the State's economy.

Source: Mike Markrich, Yacht Racing Expenditures in Hawaii (University of Hawaii Sea Grant College Program and DPED Ocean Resources Branch, June 1986).

Table 252.-- TRIATHLON, OCEAN SWIM, AND BIATHLON EXPENDITURES, BY TYPE: 1985

Type of event	Events	Expenditures ($1,000)			
		Direct and indirect	Direct 1/		Indirect 2/
			Total	Race organization	
Total	35	9,522	5,566	1,015	3,956
Triathlons	13	9,264	5,324	960	3,940
Ironman 3/	1	7,533	4,329	825	3,204
Others	12	1,731	995	135	736
Ocean swims	13	236	220	34	16
Biathlons	9	22	22	22	-

1/ Includes race organization expenditures, athletes' and dependents' living expenses, athletes' race-related expenditures, and media expenses.

2/ Secondary and tertiary expenditure effects on State's economy.

3/ Bud Light Ironman Triathlon World Championship.

Source: Mike Markrich, Triathlons, Ocean Swims, and Biathlons in Hawaii, Expenditures for 1985 (University of Hawaii Sea Grant College Program and Ocean Resources Branch, Hawaii State Department of Planning and Economic Development, September 1986).

Table 253.-- IRONMAN TRIATHLON WORLD CHAMPIONSHIP REGISTRANTS, FINISHERS, AND WINNING TIMES: 1978 TO 1988

Year	Number of registrants	Number of finishers	Winning time (hr., min., sec.)	
			Men	Women
1978	15	12	11:46:58	--
1979	15	12	11:15:56	12:55:38
1980	108	94	9:24:33	11:21:24
1981	326	299	9:38:29	12:00:32
1982 (Feb.) ..	580	541	9:19:41	11:09:40
1982 (Oct.) ..	850	775	9:08:23	10:54:08
1983	964	838	9:05:57	10:43:36
1984	1,036	903	8:54:20	10:25:13
1985	1,018	965	8:50:54	10:25:22
1986	1,039	951	8:28:37	9:49:14
1987	1,381	1,286	8:34:13	9:35:25
1988	1,277	1,189	8:31:00	9:01:01

Source: McNeil Wilson Communications for Bud Light Ironman Triathlon World Championship, records.

Table 254.-- HONOLULU MARATHON REGISTRANTS, FINISHERS AND WINNING TIMES: 1982 TO 1987

Year	Number of registrants	Number of finishers	Winning time (hr., min., sec.)	
			Men	Women
1982	12,275	10,023	2:15:30	2:41:10
1983	10,847	8,434	2:20:18	2:41:25
1984	10,653	8,166	2:16:25	2:42:49
1985	9,310	8,287	2:12:08	2:35:51
1986	10,354	8,563	2:11:43	2:31:01
1987	10,413	8,793	2:18:26	2:35:11

Source: Honolulu Marathon Association, records.

Table 255.-- PROFESSIONAL BASEBALL (HAWAII ISLANDERS): 1961 TO 1987

[The Hawaii Islanders were members of the Pacific Coast League for 27 seasons. They played their first league game April 20, 1961 and their final game September 1, 1987. Home games were played at Honolulu Stadium, 1961-1975; at Aloha Stadium, 1976-1985 and 1987; and at Aloha and Rainbow Stadiums, 1986]

Year	Games won	Games lost	Home attendance
1961	68	86	165,786
1962	77	76	139,747
1963	81	77	236,848
1964	60	98	154,827
1965	75	72	174,699
1966	63	84	191,367
1967	60	87	218,983
1968	78	69	255,569
1969	74	72	280,477
1970	98	48	467,217
1971	73	73	375,957
1972	74	74	305,873
1973	70	74	238,390
1974	67	77	179,633
1975	88	56	213,432
1976	77	68	306,236
1977	79	67	347,931
1978	56	82	155,301
1979	72	76	176,049
1980	76	65	137,778
1981	72	65	157,918
1982	73	71	136,876
1983	72	71	145,866
1984	87	53	144,623
1985	84	59	134,864
1986	65	79	84,614
1987 1/ .	65	75	116,107

1/ In 27 years, the Islanders won 1,984 regular-season games, lost 1,954, and tied 13, for a .504 record. They played 2,013 home games at nine different ball parks in Hawaii.

Source: Honolulu Advertiser, Aug. 19, 1987, p. D-1, and Sept. 2, 1987, p. C-1; Ferd Borsch, Hawaii Islanders scorer, records.

Table 256.-- TOTAL ATTENDANCE AT FOOTBALL BOWL GAMES: 1982-1983 TO 1987-1988 SEASONS

[Revised from Data Book 1987, table 266]

Bowl	1982-1983	1983-1984	1984-1985	1985-1986	1986-1987	1987-1988
Aloha Bowl	24,907	34,728	37,996	30,574	20,666	20,093
Hula Bowl	33,456	26,829	25,890	20,943	15,774	26,737
Pro Bowl	46,721	47,482	48,124	47,906	46,799	46,692

Source: Hawaii State Department of Accounting and General Services, Stadium Authority, records.

Table 257.-- VARSITY SPORTS SUMMARY FOR THE UNIVERSITY OF HAWAII AT MANOA: 1987-1988

[Includes only games played against four-year collegiate teams]

Sports	Games played 1/				Home games	
	Total	Won	Lost	Tied	Home dates	Attendance
Baseball	62	40	21	1	44	125,752
Basketball (men's)	29	4	25	-	17	28,620
Basketball (women's) ..	28	14	14	-	11	2,851
Football	12	5	7	-	9	385,536
Volleyball (men's)	28	24	4	-	8	10,057
Volleyball (women's) ..	39	37	2	-	18	24,196

1/ Volleyball data refer to matches.

Source: University of Hawaii, Office of Intercollegiate Athletics, Sports Information Office, records.

Table 258.-- PUBLIC HIGH SCHOOL INTERSCHOLASTIC SPORTS: 1987-1988 SEASON

Sport	Players	Games 1/	Attendance	Expenditure 2/ (dollars)
Baseball ..	Boys	364	68,278	212,745
Basketball	Boys and girls	886	131,006	458,796
Football ..	Boys	258	356,210	680,440

1/ Junior varsity and varsity games, based on published schedules of sports from public school leagues. Data exclude pre-season and post-season games.

2/ Data on expenditures and encumbrances reflect figures from the general and school trust funds.

Source: Hawaii State Department of Education, Office of Instructional Services, Athletics Program, records.

Table 259.-- BOWLING ESTABLISHMENTS (SIC 7933): 1982

[Includes only establishments with payroll]

Subject	Number	Source of receipts from customers	Amount ($1,000)
Establishments	18	Receipts, total	8,069
Lanes operated, Dec. 31	389	Bowling	6,545
Per establishment	22	Sales of food, refreshments. and alcoholic beverages ..	788
Paid lines bowled (1,000)	6,052	Other sources	736

Source: U.S. Bureau of the Census, 1982 Census of Service Industries, Miscellaneous Subjects, SC82-I-5 (December 1985), table 22.

Table 260.-- PROFESSIONAL BOXING: 1982 TO 1987

Year	Number of promoters	Number of shows	Paid attendance	Gross receipts (dollars)
1982 ...	2	8	9,713	86,128.00
1983 ...	3	12	22,178	200,148.50
1984 ...	1	9	14,937	156,260.00
1985 ...	1	9	18,278	201,852.00
1986 ...	2	6	7,181	67,105.00
1987 ...	1	2	1,152	15,560.00

Source: Hawaii State Department of Commerce and Consumer Affairs, Boxing Commission, records.

Table 261.-- DOG LICENSES ISSUED, BY ISLANDS: 1982 TO 1987

[Dogs are licensed on a biennial basis]

Year	State total	Hawaii	Maui	Lanai	Molokai	Oahu	Kauai
1982	25,617	1,682	1,500	32	62	20,845	1,496
1983	41,566	3,397	3,454	98	203	33,597	817
1984	19,661	1,974	1,372	38	119	15,832	326
1985	33,598	2,809	2,171	35	111	27,654	818
1986	18,713	2,078	1,204	12	39	15,151	229
1987	28,208	3,287	1,633	35	65	22,573	615

Source: Compiled by the Hawaii State Department of Business and Economic Development from the County Departments of Finance.

Section 8

ELECTIONS

This section presents data on election districts, registered voters, votes cast, campaign expenditures, elected officials, and legislative activity.

About 420,000 persons were registered to vote in the general election of November 4, 1986, and more than 344,000 actually voted. The number voting amounted to 44 percent of the 784,000 Hawaii residents of voting age at that time. The latter figure included aliens, inmates of mental and penal institutions, and members of the armed forces and their dependents, groups that are either ineligible or unlikely to vote in Island elections. Among registered voters, females outnumbered males and Democrats were far more numerous than Republicans. Campaign expenditures for the 1986 primary and general elections (other than for federal offices) exceeded $12.8 million.

Hawaii has 2 Congressional, 25 Senatorial, 51 Representative, and 9 Councilmanic districts. It also contains 15 Soil Conservation districts, 30 active Neighborhood Board districts, and 289 election precincts.

Elected officials in Hawaii include the President and Vice President, two U.S. Senators, two U.S. Representatives, the Governor and Lieutenant Governor, 25 State Senators, 51 State Representatives, and various county officials. Persons of Hawaiian blood also vote for the Board of Trustees of the Office of Hawaiian Affairs. The minimum voting age is 18 years.

The 1987 State Legislature, with 76 members, included 60 males, 36 persons under 40 years of age, 28 persons of Japanese ancestry, 18 persons born in places other than Hawaii, and 60 Democrats.

In its 1988 regular and special sessions, the State Legislature considered 6,381 bills; 438 were passed and 406 became law. The Legislature also considered 1,382 resolutions, of which 532 were adopted.

The official results of primary, general, and special elections are published by the Office of the Lieutenant Governor. Additional information is often available from the various county clerks. Earlier figures for Hawaii appear in Historical Statistics of Hawaii, Section 24. National statistics appear in the Statistical Abstract of the United States: 1988, Section 8.

Table 262.-- ELECTION DISTRICTS AND POPULARLY ELECTED OFFICIALS: NOVEMBER 1986 AND 1988

Office	Election districts		Officials to be elected 1/		Total elected officials, including holdover	
	1986	1988	1986	1988	1986	1988
Federal offices:						
President and Vice President	...	...	-	2	2	2
U.S. Senate	...	...	1	1	2	2
U.S. House of Representatives	2	2	2	2	2	2
State offices:						
Governor and Lt. Governor	...	...	2	-	2	2
State Senate	25	25	12	15	25	25
State House of Representatives	51	51	51	51	51	51
Board of Education	2	2	6	8	13	13
Office of Hawaiian Affairs	...	...	5	4	9	9
Soil and water conservation dist. 2/	15	15	...	...	45	45
County offices:						
Mayor	...	...	2	3	4	4
Council:						
Hawaii	...	...	-	9	9	9
Maui	...	...	9	9	9	9
Honolulu	9	9	9	3	9	9
Kauai	...	...	7	7	7	7
Prosecuting Attorney	...	...	-	3	3	3
Neighborhood Boards 3/	30	30	-	-	438	438
Precincts	284	289	-	-	-	-

1/ Including vacancies to be filled.

2/ Three seats are elected and two are appointed for each district. Elections are an ongoing process.

3/ Elections are conducted every other year in odd-numbered years.

Source: Office of the Lieutenant Governor, July 14, 1988.

Table 263.-- POPULATION OF VOTING AGE AND PERCENT VOTING: 1960 TO 1988

[As of November. Resident population 20 years old and over through 1970 and 18 years and over in 1972 and later years. Includes armed forces stationed in Hawaii]

Year	Persons of voting age	Percent casting votes	
		For Presidential Electors	For U.S. Representatives
1960	371,000	49.7	49.2
1962	390,000	(X)	49.9
1964	404,000	51.3	56.9
1966	417,000	(X)	49.9
1968	439,000	53.8	55.3
1970	473,000	(X)	44.0
1972	547,000	49.4	50.3
1974	586,000	(X)	44.3
1976	624,000	46.7	47.0
1978	657,000	(X)	38.6
1980 1/	697,000	43.5	40.2
1982 1/	729,000	(X)	40.9
1984 1/	758,000	44.3	36.3
1986 1/	2/ 784,000	(X)	42.3
1988	824,000	...	...

X Not applicable.

1/ Revised from Data Book 1987, table 273.

2/ Of this number, approximately 147,000 were ineligible to vote, most of them aliens or military personnel and dependents with legal residence elsewhere. There were thus around 637,000 persons eligible to vote, of whom 65.9 percent were registered and 54.1 percent actually voted in November 1986.

Source: U.S. Bureau of the Census, "Projections of the Population of Voting Age for States: November 1980," Current Population Reports, Series P-25, No. 879, March 1980; "Projections of the Population of Voting Age for States: November 1982," Current Population Reports, Series P-25, No. 916, July 1982; "Projections of the Population of Voting Age for States: November 1988," Current Population Reports, Series P-25, No. 1019, January 1988. Persons eligible to vote, registered, and casting votes in 1986 calculated by DBED.

Table 264.-- POPULATION OF VOTING AGE, BY AGE, SEX, RACE, AND HISPANIC ORIGIN: NOVEMBER 1988

[Numbers in thousands]

Subject	Number	Percent	Subject	Number	Percent
Total, 18 years and over ...	824	100.0	Sex:		
			Male	417	50.6
			Female	407	49.4
Age:					
18 to 24 years ..	136	16.5	Race:		
25 to 44 years ..	370	44.9	White	288	34.9
45 to 64 years ..	201	24.4	Black	15	1.8
65 years and over	118	14.3	Other races	522	63.3
Median (years) ..	39.1	(X)			
			Hispanic origin ...	52	63

X Not applicable.

Source: U.S. Bureau of the Census, "Projections of the Population of Voting Age, for States: November 1988," Current Population Reports, Population Estimates and Projections, Series P-25, No. 1019 (January 1988).

Table 265.-- POPULATION ELIGIBLE AND INELIGIBLE TO VOTE: NOVEMBER 1986

[In thousands]

Group	All ages	Under 18 years	18 years and over		
			Total	Eligible	Ineligible
Total 1/	1,071	287	784	637	147
Aliens 2/	75	13	62	-	62
Armed forces 3/	58	-	58	2	56
Military dependents 3/ ..	65	37	28	1	27
All others 4/	873	237	636	634	2

1/ Total interpolated from DBED Statistical Report 208, table 2; 18 and over from present report, table 264.

2/ From 1980 Census of Population, PC80-1-D13, table 194.

3/ Total from DBED Statistical Report 208, table 2; age distribution from 1980 data in DPED Statistical Report 163, table 4; eligibility from 1983 survey in Data Book 1984, table 416.

4/ Total and age distribution by subtraction; eligibility breakdown allows for institutionalized felons and mental patients, from Data Book 1987, tables 90 and 150.

Source: Estimated by Hawaii State Department of Business and Economic Development from sources cited in above footnotes.

Table 266.-- PERCENT OF CIVILIAN POPULATION REGISTERED OR VOTING IN ELECTIONS, 1984 AND 1986, AND BY COUNTIES, 1986

[Based on July 1 estimates of civilian population, including military dependents, aliens, and persons under 18 years of age]

Election	The State		Counties: 1986			
	1984	1986	Hawaii	Maui	Hono-lulu	Kauai
Registered:						
Primary	40.8	39.6	43.4	40.7	38.4	47.6
General	42.8	41.7	45.1	43.7	40.5	49.5
Voting:						
Primary	22.7	28.0	28.5	27.8	27.4	36.6
General	35.7	34.2	36.3	35.7	33.2	42.2

Source: Office of the Lieutenant Governor, Result of Votes Cast for each election; Department of Business and Economic Development, unpublished estimates of civilian population by counties.

Table 267.-- REPORTED VOTING AND REGISTRATION, BY SEX: NOVEMBER 1986

[Number 18 and over in thousands. Percentages based on a sample]

Sex and race	Civilians 18 years old and over	Reported registered		Reported voted	
		Percent	Standard error	Percent	Standard error
Total	714	57.9	1.9	53.0	2.0
Male	347	56.5	2.8	52.6	2.8
Female	367	59.3	2.7	53.4	2.7
White	201	64.0	3.5	55.9	3.7

Source: U.S. Bureau of the Census, "Voting and Registration in the Election of November 1986," Current Population Reports, Population Characteristics, Series P-20, No. 414, September 1987, p. 25.

Table 268.-- REGISTERED VOTERS AND VOTES CAST IN PRIMARY AND GENERAL ELECTIONS: 1970 TO 1988

Type and date of election	Registered voters			Votes cast	
	Both sexes	Male	Female	Number	Percent of reg. voters
Primary elections:					
1970: Oct. 3	282,470	(NA)	(NA)	202,401	71.7
1972: Oct. 7	326,906	(NA)	(NA)	203,160	62.1
1974: Oct. 5	333,527	(NA)	(NA)	235,982	70.8
1976: Oct. 2	353,249	175,276	177,973	251,457	71.2
1978: Oct. 7	387,673	190,796	196,877	289,029	74.6
1980: Sept. 20 ...	384,858	186,982	197,876	264,041	68.6
1982: Sept. 18 ...	385,307	185,763	199,544	272,691	70.8
1984: Sept. 22 ...	398,858	190,525	208,333	221,957	55.6
1986: Sept. 20 ...	398,197	189,655	208,542	281,352	70.7
1988: Sept. 17 1/	419,441	199,441	220,000	275,673	65.7
General elections:					
1970: Nov. 3	291,681	146,630	145,051	247,740	84.9
1972: Nov. 7	337,837	169,896	167,941	286,593	84.8
1974: Nov. 5	343,404	171,072	172,332	272,545	79.4
1976: Nov. 2	363,045	180,265	182,780	309,025	85.1
1978: Nov. 7	395,262	194,412	200,850	292,690	74.0
1980: Nov. 4	402,795	195,804	206,991	318,026	79.0
1982: Nov. 2	405,005	195,259	209,746	325,459	80.4
1984: Nov. 6	418,904	200,424	218,480	349,253	83.4
1986: Nov. 4	419,794	200,233	219,561	344,416	82.0
1988: Nov. 8	443,742	211,539	232,203	368,567	83.0

NA Not available.

1/ Distribution by sex estimated from tabulation made September 1, 1988 (see table 269, footnote 1).

Source: Office of the Lieutenant Governor, Result of Votes Cast for each election, and records.

Table 269.-- REGISTERED VOTERS AND VOTES CAST IN PRIMARY AND GENERAL ELECTIONS, BY COUNTIES: 1988

[Excludes persons registered for only the Office of Hawaiian Affairs election but not for the regular primary or general elections]

Election and county	Registered voters 1/			Votes cast	
	Both sexes	Male	Female	Number	Percent of reg. voters
PRIMARY ELECTION					
State total ..	419,441	199,441	220,000	275,673	65.7
Hawaii	49,510	23,805	25,705	32,921	66.5
Maui	37,196	17,784	19,412	20,994	56.4
Honolulu	308,140	145,768	162,372	201,358	65.3
Kauai	24,595	12,084	12,511	20,400	82.9
GENERAL ELECTION					
State total ..	443,742	211,539	232,203	368,567	83.1
Hawaii	52,221	25,177	27,044	44,195	84.6
Maui	40,436	19,395	21,041	32,534	80.5
Honolulu	325,614	154,451	171,163	270,223	83.0
Kauai	25,471	12,516	12,955	21,615	84.9

1/ Distribution by sex for the primary election estimated from tabulation made September 1, 1988, 16 days before the election. The September 1 count reported 199,643 males and 220,225 females.

Source: Office of the Lieutenant Governor, records.

Table 270.-- PARTY OF VOTES CAST IN PRIMARY ELECTIONS: 1978 TO 1988

Primary election	Total votes cast	Democratic	Republican	Other parties	Non-partisan	Invalidated	Blank
1978	289,029	262,531	25,642	211	548	-	97
1980	264,041	250,226	10,628	1,089	1,881	217	-
1982	272,691	245,426	13,262	12,681	1,013	309	-
1984	221,957	177,102	43,306	695	455	399	-
1986	281,352	235,559	44,304	-	1,023	466	-
1988	275,561	221,350	50,924	563	1,340	1,180	204

Source: Office of the Lieutenant Governor, Result of Votes Cast, Primary Election for years shown, and records.

Table 271.-- PARTY OF VOTES CAST IN PRIMARY ELECTION, BY COUNTIES: SEPTEMBER 17, 1988

Party	State total	Hawaii County	Maui County	City and County of Honolulu	Kauai County
Total votes cast	275,561	32,921	20,994	201,246	20,400
Democratic	221,350	27,540	16,443	157,851	19,516
Libertarian	563	61	78	406	18
Republican	50,924	5,099	4,379	40,763	683
Non-partisan	1,340	120	-	1,173	47
Invalidated	1,180	101	82	910	87
Blank	204	-	12	143	49

Source: Office of the Lieutenant Governor, printouts.

Table 272.-- VOTES CAST FOR CANDIDATES FOR MAJOR OFFICES: PRIMARY ELECTION, SEPTEMBER 17, 1988

Office, party, and candidate	Votes
U.S. SENATOR	
Democrat:	
Spark Matsunaga	180,853
Bob Zimmerman	27,360
Republican:	
Maria Hustace	18,124
Leonard Mednick	13,590
Susanne Sydney	5,526
Libertarian:	
Ken Schoolland	367
REPRESENTATIVE TO CONGRESS, DISTRICT 1	
Democrat:	
Mary Bitterman	51,942
Leigh-Wai Doo	35,579
John Radcliffe	15,258
Republican:	
Patricia Saiki	23,132
Libertarian:	
Blase Harris	166
REPRESENTATIVE TO CONGRESS, DISTRICT 2	
Democrat:	
Daniel K. Akaka	94,302
Libertarian:	
Lloyd J. Mallan	188
MAYOR OF HONOLULU	
Democrat:	
Marilyn R. Bornhorst	57,097
Patsy T. Mink	48,771
Randall Y. Iwase	22,906
Dennis O'Connor	21,585
Jerry Souza	3,469
Republican:	
Frank F. Fasi	36,608
Gordon A. Nelson	1,167
Charles Y. Hirayasu	1,035
Non-partisan:	
Michael J. Mixell	576
Antrinik Toorinjian	219

Continued on next page.

Table 272.-- VOTES CAST FOR CANDIDATES FOR MAJOR OFFICES: PRIMARY ELECTIONS, SEPTEMBER 17, 1988 -- Con.

Office, party, and candidate	Votes
MAYOR OF HAWAII COUNTY	
Democrat:	
Dante K. Carpenter	16,467
Paul Snider	6,320
Republican:	
Bernard K. Akana	2,366
Roger Evans	988
Stuart T. Gregory	429
Non-partisan:	
Kiko Johnston-Kitazawa	103
MAYOR OF KAUAI COUNTY	
Democratic:	
JoAnn Yukimura	12,215
Tony T. Kunimura	6,910
Republican:	
Raymond X. Aki	505
John Sousa	94
Non-partisan:	
Gregory Goodwin	33

Source: Office of the Lieutenant Governor, printouts.

Table 273.-- NUMBER OF PRECINCTS, REGISTERED VOTERS, AND VOTES CAST, BY ISLANDS: NOVEMBER 8, 1988

Island	Number of precincts	Registered voters	Votes cast
State total	289	443,742	368,567
Hawaii	51	52,221	44,195
Maui	31	36,668	29,945
Lanai	1	888	721
Molokai: Molokai District	4	2,782	1,792
Kalawao District	1	98	76
Oahu 1/	183	325,614	270,223
Kauai	17	25,338	21,562
Niihau	1	133	53

1/ Including the Northwestern Hawaiian Islands, part of the 5th Precinct of the 20th Representative District, in Waimanalo, Oahu.

Source: Office of the Lieutenant Governor, printouts.

Table 274.-- AGE AND SEX OF REGISTERED VOTERS: NOVEMBER 8, 1988

Age	Both sexes	Male	Female
All ages	443,742	211,539	232,203
18 or 19 years	11,508	5,169	6,339
20 to 29 years	71,159	31,952	39,207
30 to 39 years	100,760	46,899	53,861
40 to 49 years	85,239	40,890	44,349
50 to 64 years	97,983	46,057	51,326
65 years and over	77,067	39,967	37,100
Not reported	26	5	21

Source: Office of the City Clerk, City and County of Honolulu, records.

Table 275.-- VOTES CAST FOR MAJOR OFFICES: GENERAL ELECTIONS, 1978 TO 1988

Office and election year	Total votes cast	Democrat		Republican		Other parties: votes
		Candidate	Votes	Candidate	Votes	
PRESIDENT						
1980	303,287	Carter	135,879	Reagan	130,112	37,296
1984	335,846	Mondale	147,154	Reagan	185,050	3,642
1988	354,461	Dukakis	192,364	Bush	158,625	3,472
U.S. SENATOR						
1980	288,006	Inouye, D.	224,485	Brown	53,068	10,453
1982	306,410	Matsunaga	245,386	Brown	52,071	8,953
1986	328,797	Inouye, D.	241,887	Hutchinson	86,910	-
1988	323,876	Matsunaga	247,941	Hustace	66,987	8,948
REPRESENTATIVE TO CONGRESS, DISTRICT 1						
1978	115,412	Heftel	84,552	Spillane	24,470	6,390
1980	123,181	Heftel	98,256	Noble	19,819	5,106
1982	149,907	Heftel	134,779	None	-	15,128
1984	138,865	Heftel	114,884	Beard	20,608	3,373
1986 1/	168,377	Hannemann	63,061	Saiki	99,683	5,633
1988	177,020	Bitterman	76,394	Saiki	96,848	3,778
REPRESENTATIVE TO CONGRESS, DISTRICT 2						
1978	137,957	Akaka	118,272	Isaak	15,697	3,988
1980	157,380	Akaka	141,477	None	-	15,903
1982	148,008	Akaka	132,072	None	-	15,936
1984	136,741	Akaka	112,377	Shipley	20,000	4,364
1986	162,819	Akaka	123,830	Hustace	35,371	3,618
1988	162,808	Akaka	144,802	None	-	18,006
GOVERNOR						
1978	281,587	Ariyoshi	153,394	Leopold	124,610	3,583
1982	315,853	Ariyoshi	141,043	Anderson, D.	81,507	89,303
1986	334,115	Waihee	173,655	Anderson, D.	160,460	-

Continued on next page.

Table 275.-- VOTES CAST FOR MAJOR OFFICES: GENERAL ELECTIONS, 1978 TO 1988 -- Con.

Office and election year	Total votes cast	Democrat		Republican		Other parties: votes
		Candidate	Votes	Candidate	Votes	
MAYOR OF HONOLULU						
1980	219,408	Anderson, E.	152,240	Schweigert .	58,155	9,013
1984	253,853	Anderson, E.	117,841	Fasi	132,875	3,137
1988	263,882	Bornhorst ..	117,479	Fasi	146,403	-

1/ For special election to fill unexpired term of Rep. Heftel, Sept. 20, 1986, see Data Book 1987, table 280.

Source: Office of the Lieutenant Governor, Result of Votes Cast, General Election, State of Hawaii for 1978-1986, and 1988 printouts.

Table 276.-- REGISTERED VOTERS AND VOTES CAST FOR THE BOARD OF TRUSTEES OF THE OFFICE OF HAWAIIAN AFFAIRS, BY COUNTIES: NOVEMBER 8, 1988

County	Registered voters			Votes cast	
	Both sexes	Male	Female	Number	Percent of reg. voters
State total	63,452	27,970	35,482	48,238	76.0
Hawaii	9,059	4,022	5,037	7,151	78.9
Maui	6,483	2,872	3,611	4,850	74.8
Honolulu	44,056	19,245	24,811	33,177	75.3
Kauai	3,854	1,831	2,023	3,060	79.4

Source: Office of the Lieutenant Governor, printouts.

Table 277.-- VOTES CAST FOR MAJOR OFFICES, BY COUNTIES: GENERAL ELECTION, 1988

Office, candidate and party	State total	County of Hawaii	County of Maui	City and County of Honolulu	County of Kauai
PRESIDENT					
Dukakis/Bentsen (D) ...	192,364	24,091	17,532	138,971	11,770
Bush/Quayle (R)	158,625	17,125	12,944	120,258	8,298
Others	3,472	552	374	2,348	198
U. S. SENATOR					
Matsunaga (D)	247,941	30,270	21,461	179,819	16,391
Hustace (R)	66,987	8,868	6,911	48,781	2,427
Others	8,948	1,175	844	6,417	512
REPRESENTATIVE TO CONGRESS, DISTRICT 1					
Saiki (R)	96,848	-	-	96,848	-
Bitterman (D)	76,394	-	-	76,394	-
Others (L)	3,778	-	-	3,778	-
REPRESENTATIVE TO CONGRESS, DISTRICT 2					
Akaka (D)	144,802	33,983	24,673	68,773	17,373
Mallan (L)	18,006	4,242	3,002	9,568	1,194
MAYOR OF HONOLULU					
Fasi (R)	146,403	-	-	146,403	-
Bornhorst (D)	117,479	-	-	117,479	-
MAYOR OF HAWAII					
Akana (R)	19,886	19,886	-	-	-
Carpenter (D)	19,088	19,088	-	-	-
MAYOR OF KAUAI					
Yukimura (D)	15,193	-	-	-	15,193
Aki (R)	5,453	-	-	-	5,453

Source: Office of the Lieutenant Governor, printouts.

Table 278.-- CAMPAIGN EXPENDITURES: 1986 ELECTIONS

[Dollars. Jan. 1, 1986 through Dec. 31, 1986]

Election and office	All candidates	Democrats	Republicans	All others
PRIMARY				
All races reported .	8,830,427.80	6,507,152.74	2,323,025.06	250.00
Governor	4,953,649.12	3,931,507.86	1,022,141.26	0.00
Lt. Governor	1,159,330.70	474,746.76	684,583.94	0.00
State Senator	387,339.77	379,005.27	8,334.50	0.00
State Representative	1,210,854.60	936,676.12	274,178.48	0.00
Mayor 1/	274,404.51	159,286.57	115,117.94	0.00
County Council 2/	844,849.10	625,930.16	218,668.94	250.00
GENERAL				
All races reported .	4,040,134.33	2,251,025.65	1,699,757.38	89,351.30
Governor	2,063,683.51	1,048,660.25	1,015,023.26	0.00
Lt. Governor	148,803.83	112,960.72	35,843.11	0.00
State Senator	241,018.26	158,453.00	82,565.26	0.00
State Representative	631,779.49	396,017.84	235,761.65	0.00
Mayor 1/	232,336.14	125,063.38	107,272.76	0.00
County Council 2/	633,161.80	409,870.46	223,291.34	0.00
Board of Education	73,609.19	0.00	0.00	73,609.19
Office of Hawaiian Aff. .	15,742.11	0.00	0.00	15,742.11
TOTAL				
All races reported .	12,870,562.13	8,758,178.39	4,022,782.44	89,601.30
Governor	7,017,332.63	4,980,168.11	2,037,164.52	0.00
Lt. Governor	1,308,134.53	587,707.48	720,427.05	0.00
State Senator	628,358.03	537,458.27	90,899.76	0.00
State Representative	1,842,634.09	1,332,693.96	509,940.13	0.00
Mayor 1/	506,740.65	284,349.95	222,390.70	0.00
County Council 2/	1,478,010.90	1,035,800.62	441,960.28	250.00
Board of Education	73,609.19	0.00	0.00	73,609.19
Office of Hawaiian Aff. .	15,742.11	0.00	0.00	15,742.11

1/ Elections held in 2 counties.
2/ Elections held in 3 counties.
Source: Hawaii State Campaign Spending Commission, August 4, 1987.

Table 279.-- NEIGHBORHOOD BOARD ELECTIONS, FOR OAHU: 1981 TO 1987

Year	Number of boards		Board seats elected	Ballots mailed	Voters (ballots cast)
	In operation, Dec. 31	Holding elections			
1981	28	28	416	294,735	48,745
1983	28	28	416	231,622	62,573
1985	30	30	438	261,222	76,674
1987	30	30	438	260,155	83,072

Source: Neighborhood Commission, City and County of Honolulu, records.

Table 280.-- PARTY MEMBERSHIP OF COUNTY COUNCILS: 1986 AND 1988

[As of January]

County	Total seats	Democrats		Republicans		Other parties or vacant	
		1986	1988	1986	1988	1986	1988
All counties	34	29	29	5	5	-	-
Hawaii	9	7	7	2	2	-	-
Maui	9	8	7	1	2	-	-
Honolulu 1/	9	7	8	2	1	-	-
Kauai	7	7	7	-	-	-	-

1/ In 1985, three Democrats switched to the Republican party. After a special recall election, all three were replaced by Democrats.

Source: The Chamber of Commerce of Hawaii, Who's Who in Government, State of Hawaii for 1985-1986, pp. 30-37, and 1987-1988, pp. 32-39.

Table 281.-- LENGTH OF LEGISLATIVE SESSIONS: 1983 TO 1988

Year	Regular sessions		Special sessions	
	Date convened	Length 1/	Date convened	Length 1/
1983	Jan. 19	94	Sept. 1	2
1984	Jan. 18	93	July 9	5
1985	Jan. 16	97	None	-
1986	Jan. 15	99	July 24	7
1987	Jan. 21	100	None	-
1988	Jan. 21	99	May 20	4

1/ Calendar days, including Saturdays, Sundays, holidays, and mandatory five-day recess required by Art. III, sec. 10, of the Hawaii Constitution.

Source: Legislative Reference Bureau, records.

Table 282.-- PARTY MEMBERSHIP OF THE STATE LEGISLATURE: 1977 TO 1987

Regular session	House of Representatives				Senate			
	Total	Democrats	Republicans	Other	Total	Democrats	Republicans	Other
1977 1/	51	41	10	-	25	18	7	-
1979 ..	51	42	9	-	25	18	7	-
1981 ..	51	39	12	-	25	17	8	-
1983 ..	51	43	8	-	25	20	5	-
1985 ..	51	40	11	-	25	21	4	-
1987 ..	51	40	11	-	25	20	5	-

1/ Forty Democrats and 11 Republicans were elected to the House of Representatives in the general election of November 1976. In January 1977, however, one Republican changed his affiliation to Democrat.

Source: Session Laws of Hawaii, 1977-1987.

Table 283.-- COMPOSITION OF THE 1987 HAWAII STATE LEGISLATURE

Subject	House of Representatives			Senate		
	Total	Democrats	Republicans	Total	Democrats	Republicans
All members	51	40	11	25	20	5
Island of residence:						
Hawaii	6	4	2	3	2	1
Maui	3	3	-	2	1	1
Lanai	-	-	-	-	-	-
Molokai	1	-	1	-	-	-
Oahu	39	31	8	19	16	3
Kauai	2	2	-	1	1	-
Niihau	-	-	-	-	-	-
Year born:						
1926 or earlier	3	3	-	3	2	1
1927 to 1936	10	7	3	6	5	1
1937 to 1946	11	7	4	7	5	2
1947 to 1956	25	21	4	9	8	1
1957 or later	2	2	-	-	-	-
Sex:						
Male	42	33	9	18	16	2
Female	9	7	2	7	4	3
Ethnic stock:						
Caucasian, except Portuguese	10	6	4	6	3	3
Chinese	4	4	-	2	2	-
Filipino	4	3	1	1	1	-
Japanese	19	18	1	9	8	1
Portuguese	2	1	1	-	-	-
Other (unmixed) 1/ ..	-	-	-	-	-	-
Mixed: Part-Hawaiian	8	7	1	6	6	-
Mixed: Non-Hawaiian .	4	1	3	1	1	-
Place of birth:						
Hawaii	37	32	5	21	18	3
Mainland U.S.	12	6	6	4	2	2
U.S. terr. or poss. .	-	-	-	-	-	-
Foreign country	2	2	-	-	-	-

1/ Black, Hawaiian, Korean, Puerto Rican, Samoan, or other ethnic stock.

Source: Office of the Lieutenant Governor, records.

Table 284.-- LEGISLATIVE BILLS AND RESOLUTIONS, BY DISPOSITION: 1987 AND 1988

Action	1987: Regular	1988	
		Regular	Special
House bills:			
Carried over from previous year	-	1,752	1
Introduced	1,937	1,660	-
Enacted 1/	185	204	1
Vetoed 2/, 3/	15	14	-
Became law 2/	168	188	1
Senate bills:			
Carried over from previous year	-	1,542	1
Introduced	1,779	1,425	-
Enacted 1/	237	232	1
Vetoed 2/, 3/	19	14	-
Became law 2/	216	216	1
House resolutions:			
Offered	500	493	-
Adopted	285	260	-
House concurrent resolutions:			
Offered	282	392	-
Adopted	61	85	-
Senate resolutions:			
Offered	205	249	-
Adopted	107	128	-
Senate concurrent resolutions:			
Offered	184	248	-
Adopted	37	59	-

1/ Includes bills for constitution amendments: H.B. 572, H.B. 1267, S.B. 107, and S.B. 1139 in 1987, and H.B. 2688, H.B. 3164, S.B. 2021, and S.B. 2718 in the 1988 regular session.

2/ The 1987 figure excludes H.B. 2, H.B. 1469, and S.B. 1735, which contain vetoed items.

3/ The 1988 regular session total includes H.B. 2032 and S.B. 3264, which were returned by the Governor and passed by the Legislature during the 1988 special session.

Source: Legislative Reference Bureau, records.

Section 9

GOVERNMENT FINANCES AND EMPLOYMENT

This section presents statistics relating to the revenues, expenditures, debt, and civilian employment of Federal, State and county governments in Hawaii.

Local government is vested in one combined city-county (Honolulu, consisting of the Island of Oahu and several outlying islets), three non-metropolitan counties (Hawaii, Kauai, and Maui), and one area (Kalawao County) administered by the State Department of Health. Separate municipal governments do not exist.

Tax collections by Federal, State and county governments in fiscal 1987 reached $5.0 billion, more than twice the level reported ten years earlier. The 1987 total included $2.8 billion in U.S. taxes, $1.8 billion in State taxes, and $412 million in county taxes, licenses and fees. Individual income taxes accounted for 88 percent of Federal collections and 31 percent of State collections in Hawaii in 1987. State revenue receipts totaled $2.9 billion, chiefly from the general excise and use tax ($818 million), individual income tax ($542 million) and Federal grants-in-aid ($404 million). The largest expenditure item in the State accounts for 1987 was education, with $815 million (out of $2.8 billion) going to the University of Hawaii and public schools and libraries. The counties, in contrast, depended largely on the real property tax and grants-in-aid for their revenues, and reported police and fire protection as their largest single expenditure item. Assessed valuation of the State tripled between 1980 and 1988, reaching $68 billion by the end of the period; of this total, $17 billion was exempt from taxation. Public bonded debt outstanding at the end of 1987 stood at $3.3 billion.

Total government employment in 1987 averaged 95,600, about 7 percent over the 1980 average. The 1987 total included 32,300 Federal workers, 49,900 persons employed by the State, and 13,400 persons on county payrolls. State civil service employees as of mid-1987 numbered 19,000.

Important sources for statistics on government in Hawaii include the U.S. Census of Governments and various annual publications of the Bureau of the Census, reports of the U.S. Treasury Department, Hawaii State Departments of Accounting and General Services, Budget and Finance, and Taxation, and the County auditors and finance directors, and an annual compilation issued by the Tax Foundation of Hawaii, Government in Hawaii: A Handbook of Financial Statistics. Data extending back to the middle of the 19th century are summarized in Historical Statistics of Hawaii, Section 25. Comparable Mainland statistics appear in the Statistical Abstract of the United States: 1988, Sections 9 and 10.

Table 285.-- FEDERAL, STATE, AND COUNTY TAX COLLECTIONS: 1970 TO 1987

[Thousands of dollars]

Year	All levels	Federal 1/	State and counties 2/		
			Total	State	Counties
1970	1,061,376	602,998	458,378	438,397	15,981
1971	1,105,657	608,051	497,606	480,690	16,916
1972	1,162,700	632,583	530,117	512,047	18,070
1973	1,327,150	735,358	591,792	571,689	20,104
1974	1,512,414	840,089	672,325	650,855	21,470
1975	1,852,801	1,087,520	765,281	743,923	21,358
1976	1,821,934	945,899	876,035	850,639	25,396
1977	2,038,318	1,106,687	931,631	905,949	25,682
1978	2,228,779	1,208,480	1,020,299	986,182	34,117
1979	2,620,194	1,455,225	1,164,969	1,127,677	37,292
1980	2,966,218	1,670,459	1,295,669	1,255,622	40,047
1981	3,245,507	1,826,363	1,419,144	1,371,490	47,655
1982 3/ .	3,314,106	1,876,628	1,437,478	1,132,699	304,779
1983	3,451,664	1,897,858	1,553,806	1,225,010	328,796
1984	3,655,283	1,980,467	1,674,816	1,331,551	343,265
1985 3/ .	3,922,942	2,116,773	1,806,169	1,440,553	365,616
1986 3/ .	4,306,653	2,347,028	1,959,625	1,562,195	397,429
1987	4,997,831	2,809,135	2,188,696	1,776,430	412,266

1/ Fiscal years ended June 30 through 1976 and September 30 thereafter.

2/ Fiscal years ended June 30. Totals include taxes collected from visitors and other nonresidents.

3/ Revised from Data Book 1987, table 293.

Source: Tax Foundation of Hawaii, Government in Hawaii: A Handbook of Financial Statistics (annual).

Table 286.-- TAX COLLECTIONS RELATIVE TO POPULATION AND PERSONAL INCOME, BY LEVEL OF GOVERNMENT: 1970 TO 1987

[Data include taxes collected in Hawaii from visitors and other nonresidents. Revised from Data Book 1987, table 294]

Year	Per capita collections 1/ (dollars)			Collections as a percent of personal income 2/		
	All levels	Federal 3/	State and counties 4/	All levels	Federal 3/	State and counties 4/
1970 ..	1,376	781	594	28.1	16.0	12.2
1971 ..	1,379	759	621	27.2	15.0	12.3
1972 ..	1,404	764	640	26.0	14.1	11.9
1973 ..	1,558	864	695	26.7	14.8	11.9
1974 ..	1,742	968	775	26.5	14.7	11.8
1975 ..	2,091	1,227	864	30.1	17.7	12.4
1976 ..	2,015	1,046	969	27.3	14.2	13.1
1977 ..	2,220	1,205	1,015	28.3	15.3	12.9
1978 ..	2,329	1,297	1,095	27.7	15.0	12.7
1979 ..	2,749	1,527	1,222	29.0	16.1	12.9
1980 ..	3,061	1,724	1,337	28.9	16.3	12.6
1981 ..	3,311	1,863	1,448	29.4	16.5	12.8
1982 ..	3,322	1,881	1,441	28.2	16.0	12.3
1983 ..	3,389	1,863	1,525	26.8	14.7	12.1
1984 ..	3,528	1,912	1,617	26.8	14.5	12.3
1985 ..	3,731	2,013	1,718	26.9	14.5	12.4
1986 ..	4,045	2,204	1,841	27.5	15.0	12.5
1987 ..	4,617	2,595	2,022	29.4	16.6	12.9

1/ Based on estimated resident population, July 1.
2/ Based on income estimates for calendar years.
3/ Collections data refer to fiscal years ended June 30 through 1976 and September 30 thereafter.
4/ Collection data refer to fiscal years ended June 30.

Source: Calculated from collections data in preceding table, population estimates in table 2, and income estimates in table 408.

Table 287.-- FEDERAL, STATE, AND COUNTY TAX COLLECTIONS, BY SOURCES: 1977, 1986, AND 1987

[In thousands of dollars. For fiscal year ended September 30 for federal collections and June 30 for others]

Source	1977	1986	1987
Total, all levels	2,038,314	4,296,654	4,997,831
Federal collections	1,106,687	2,337,030	2,809,135
Indiv. income and employment 1/ ..	922,574	2,025,180	2,462,058
Corp. income and excess profits ..	134,840	227,174	254,775
Excise	16,953	36,978	45,484
Estate	12,958	29,316	26,753
Gift	11,266	2,684	2,587
Unemployment insurance	8,096	15,698	17,478
State collections	905,945	1,562,195	1,776,430
General excise and use	341,326	747,102	817,949
Transient accommodations 2/	-	-	23,519
Fuel	44,227	67,559	73,296
Liquor	16,222	29,852	34,547
Tobacco	10,311	19,741	19,060
Insurance	13,321	34,609	35,949
Public service companies	31,201	70,265	61,792
Corporate income 3/	22,743	39,589	61,517
Indiv. income, net income 4/	203,018	467,206	542,689
Inheritance and estate	4,104	5,971	5,178
Unemployment compensation	61,435	66,951	76,056
Other sources	158,037	13,349	24,878
County collections	25,682	397,429	412,266
Real property	-	333,670	346,171
Utility franchise	6,145	18,049	15,523
Motor vehicle weight 5/	12,952	32,504	35,619
Other sources	6,586	13,206	14,952

1/ Includes withholding, FICA, individual income, and railroad retirement taxes.

2/ Transient accommodations tax collection effective January 1, 1987.

3/ Includes payments of estimated taxes less refunds.

4/ Includes withheld and estimated taxes less refunds, and delinquent compensation taxes (repealed January 1, 1958).

5/ Includes State motor vehicle weight tax for 1986 and 1987.

Source: Tax Foundation of Hawaii, Government in Hawaii, 1988, tables 13 and 29.

Table 288.-- ESTIMATED TAX BURDEN FOR A FOUR-PERSON FAMILY ON OAHU: 1986

[Based on a gross family income equivalent to four times the per capita personal income estimated for Hawaii]

Tax category 1/	Amount (dollars)
Total tax burden 2/	18,828
Direct taxes 3/	14,581
Real property	808
Automobile	352
General excise (sales)	876
State income	2,884
Federal income	6,404
Social Security	3,330
Indirect taxes (specific taxes)	188
Employment taxes paid by employer	7,979
Social Security	3,330
Unemployment Compensation	642
Workers' Compensation	3,780
Temporary Disability Insurance	224
Assumed gross family income	55,256
Net income	36,428

1/ For underlying assumptions, see source.

2/ Based on four times the per capita overall tax burden, including corporate income taxes, and not on the sum of the direct and employment taxes listed in this table.

3/ Excludes general excise tax on gasoline.

Source: Tax Foundation of Hawaii, The Tax Burden of the Arnie Aloha Family (July 1987).

Table 289.-- FAMILY TAX BURDEN, BY NUMBER OF WAGE EARNERS AND DEPENDENTS AND GROSS INCOME, FOR HONOLULU: 1988

Subject	2 incomes, no dependents			1 income, 3 dependents		
	$15,000	$35,000	$75,000	$15,000	$35,000	$75,000
Total tax liability ..	$1,862	$5,993	$19,337	$1,200	$5,515	$17,898
Percent of income ..	12.4	17.1	25.8	8.0	15.8	23.9
Federal taxes	915	3,003	11,767	330	2,708	10,809
State and local taxes ..	947	2,991	7,570	870	2,807	7,089
51-city index, total 1/	0.91	1.02	1.04	0.84	1.01	1.03
Federal taxes	1.00	1.00	0.98	1.00	1.00	0.98
State and local taxes ..	0.84	1.05	1.16	0.80	1.02	1.12

1/ Honolulu relative to 51-city average (based on largest city in each State, plus D.C.).

Source: Government Finance Research Center of the Government Finance Officers Association, Comparative Tax Burdens: Largest City in Each State (1987), p. 43.

Table 290.-- PER CAPITA REVENUE, EXPENDITURE, AND DEBT OF STATE AND LOCAL GOVERNMENT: 1985 AND 1986

Subject	Amount (dollars)		Percent of U.S.		Rank	
	1985	1986	1985	1986	1985	1986
General revenue	2,673	2,881	106.8	108.3	14	12
Taxes	1,652	1,785	112.8	115.4	9	8
Debt outstanding	2,898	3,115	121.7	117.2	16	17
General expenditure	2,468	2,702	106.7	107.4	18	14
Capital outlay	350	441	104.5	141.6	22	8

Source: Statistical Abstract of the United States: 1988, pp. 264-265; U.S. Bureau of the Census, Government Finances in 1985-86, GF 86, No. 5, pp. 106-110.

Table 291.-- STATE REVENUE RECEIPTS: 1986 AND 1987

[In thousands of dollars. Years ended June 30]

Source of revenues	1986: all funds	1987 All funds	1987 General funds	1987 Special funds
Total 1/	2,571,665	2,858,780	1,835,036	1,023,745
Tax revenues	1,553,126	1,848,451	1,693,616	154,835
General excise	747,094	817,937	805,706	12,231
Specific excises 2/	215,950	314,131	248,783	65,349
Individual income	467,614	542,315	542,315	-
Corporate income	38,726	61,517	61,517	-
Unemployment compensation	66,951	76,056	-	76,056
Other taxes, licenses, permits 3/	16,761	36,495	35,296	1,199
Fines, forfeits, and escheats	13,229	12,873	11,521	1,352
Federal grants-in-aid	393,969	403,636	10,974	392,662
Revenues from other agencies	10,244	13,480	2,376	11,105
Rents, royalties, land income 4/	24,590	24,666	4,605	20,060
Earnings: general departments	196,535	209,960	59,096	150,865
Earnings: auxiliary enterprises	30,133	30,962	-	30,962
Earnings: public service enterp.	122,777	137,475	-	137,475
Interest earned	114,331	102,849	42,492	60,357
Miscellaneous	112,730	74,428	10,356	64,071

1/ Excludes transfers and repayments except as shown.

2/ Includes public utilities, tobacco, liquor, insurance, and fuel taxes.

3/ Includes franchise tax, inheritance and estate taxes, and conveyance tax.

4/ Includes investment and unallocable interest income.

Source: Tax Foundation of Hawaii, Government in Hawaii, 1988, table 12.

Table 292.-- STATE OPERATING EXPENDITURES, BY FUNCTION: 1977, 1986, AND 1987

[In thousands of dollars. For years ended June 30. Due to reclassification of funds, 1977 data are not exactly comparable to later years. Data include general, special, and proprietary fund expenditures; Unemployment Trust Fund treated as a special fund. Interfund transfers eliminated to avoid duplication]

Functions	1977	1986	1987
Total	1,391,157	2,456,119	2,796,506
General government: Control	22,408	56,203	65,067
Staff	58,471	138,475	126,024
Public safety: Police and fire	2,455	2,260	2,202
Other protection	62,800	90,359	101,714
Highways	28,261	104,534	72,270
Natural resources	15,310	21,411	22,808
Health and sanitation	24,794	83,782	118,025
Hospitals and institutions	73,321	120,827	97,677
Public welfare	203,520	322,461	341,357
Education: Higher	155,758	299,429	314,310
Public schools	256,114	450,259	476,298
Libraries and other	13,348	23,534	24,613
Recreation	12,106	16,751	15,994
Utilities and other enterprises	37,693	90,262	161,055
Debt service 1/	108,698	262,385	275,602
Retirement and pension	49,614	141,454	133,221
Employees' health and hosp. insurance	11,495	659	640
Unemployment compensation	99,729	63,072	53,496
Grants-in-aid to counties	21,560	18,173	31,373
Urban redevelopment and housing	38,111	94,762	222,340
Miscellaneous	13,931	41,587	49,297
Cash capital improvements 2/	81,660	13,480	91,121

1/ Debt service on revenue bonds reimbursable from highway funds included under Highways; from airport and harbor funds under Utilities; from Sand Island receipts, land revolving trust, and Veterans' Home Loan funds under Miscellaneous.

2/ Special funds accounted for $81,501,103 in 1977, $61,189,007 in 1986, and $73,322,640 in 1987.

Source: Tax Foundation of Hawaii, Government in Hawaii, 1988, table 35.

Table 293.- COUNTY OPERATING REVENUES, BY SOURCE, AND COUNTY OPERATING EXPENDITURES, BY OBJECT, FOR ALL COUNTIES COMBINED: 1977, 1986, AND 1987

[In thousands of dollars. For years ended June 30]

Subject	1977	1986	1987
OPERATING REVENUES 1/			
Total	350,178	640,539	680,267
Real property taxes	149,203	333,670	346,171
Other taxes	30,502	58,574	58,504
Fees, licenses, permits, and fines	8,313	16,479	18,265
Departmental earnings and charges	16,584	75,707	75,678
State grants	28,523	27,265	41,717
Federal grants	110,853	100,375	98,758
Other sources	6,200	28,469	41,175
OPERATING EXPENDITURES 2/			
Total	367,493	610,933	672,565
General government: Control	6,383	8,150	9,373
Staff	29,560	59,322	63,301
Public safety: Police and fire	70,292	131,835	140,768
Other protection	10,561	22,682	23,990
Highways	19,867	29,843	31,591
Health and sanitation	21,682	53,069	52,610
Public welfare	1,742	7,481	7,512
Public schools	514	566	550
Recreation	23,326	41,668	42,926
Interest	13,056	30,324	40,951
Bond redemption	18,259	4,810	22,986
Pension and retirement	19,917	54,863	51,569
Economic and urban development	31,275	20,548	19,907
Mass transit	19,540	34,006	47,837
Miscellaneous	15,822	34,012	40,755
Cash capital improvements	65,700	77,755	75,935

Footnotes and source follow next table.

Table 294.-- COUNTY OPERATING REVENUES, BY SOURCE, AND COUNTY OPERATING EXPENDITURES, BY OBJECT, BY COUNTIES: 1987

[In thousands of dollars. For year ended June 30, 1987]

Subject	City and Co. of Honolulu	County of Maui	County of Hawaii	County of Kauai
OPERATING REVENUES 1/				
Total	510,288	62,459	73,356	34,164
Real property taxes	254,316	32,573	42,035	17,247
Other taxes	42,711	7,100	5,821	2,872
Fees, licenses, permits, and fines	12,818	2,663	2,028	756
Departmental earnings and charges	59,236	8,310	4,526	3,606
State grants	15,359	10,193	10,555	5,610
Federal grants	88,851	526	5,678	3,703
Other sources	36,997	1,096	2,713	369
OPERATING EXPENDITURES 2/				
Total	502,818	65,508	70,764	33,475
General government: Control	5,551	1,119	1,730	973
Staff	43,110	7,146	8,029	5,016
Public safety: Police and fire	99,478	13,097	20,660	7,533
Other protection	15,544	2,438	5,080	928
Highways	19,275	4,800	4,716	2,800
Health and sanitation	43,067	5,224	3,051	1,268
Public welfare	-	4,353	2,417	742
Public schools	-	176	254	120
Recreation	30,568	4,163	5,974	2,221
Interest	31,600	2,932	4,983	1,436
Bond redemption	17,665	2,398	1,690	1,233
Pension and retirement	36,837	2,909	8,780	3,043
Economic and urban development	19,907	-	-	-
Mass transit	47,301	-	536	-
Miscellaneous	28,896	4,265	1,823	5,771
Cash capital improvements	64,017	10,487	1,042	389

1/ Excludes loan, bond, revolving, improvement district, and certain trust funds, and Board of Water Supply revenues.

2/ Excludes certain revolving, bond, loan and enterprise funds, and urban redevelopment land purchases.

Source: Tax Foundation of Hawaii, Government in Hawaii, 1988, tables 24-27 and 36-39.

Table 295.-- NUMBER OF EXEMPTIONS AND ADJUSTED GROSS INCOME REPORTED ON INDIVIDUAL FEDERAL INCOME TAX RETURNS: TAX YEARS 1969 TO 1986

Tax year	Number of returns	Number of exemptions 1/	Adjusted gross income (less deficit)		
			Total ($1,000)	Per return (dollars)	Per exemption 1/ (dollars)
1969	290,251	716,153	2,407,048	8,293	3,361
1970	302,426	763,992	2,802,445	9,267	3,668
1971	308,814	809,612	3,010,051	9,747	3,718
1972	318,023	763,985	3,250,608	10,221	4,255
1973	345,211	832,636	3,749,212	10,861	4,503
1974	346,824	805,533	3,957,023	11,409	4,912
1975	358,510	841,976	4,269,028	11,908	5,070
1976	362,956	815,937	4,625,609	12,744	5,669
1977	380,937	847,098	5,218,740	13,700	6,161
1978	403,217	925,125	5,943,659	14,741	6,425
1979	412,922	880,845	6,493,228	15,725	7,372
1980	424,177	936,056	7,320,740	17,259	7,821
1981	437,977	957,338	7,870,617	17,970	8,221
1982	445,953	1,027,743	8,236,603	18,470	8,014
1983	450,097	1,037,030	8,652,808	19,224	8,344
1984	461,424	1,055,297	9,322,406	20,204	8,834
1985	470,745	1,071,202	9,965,599	21,170	9,303
1986	485,014	1,096,934	10,959,168	22,596	9,991

1/ Exemptions for age or blindness excluded through 1981 and included thereafter.

Source: U.S. Treasury Department, Internal Revenue Service, *Statistics of Income. Individual Income Tax Returns* (annual); *SOI Bulletin*, *Summer 1985, p. 93, Winter 1985-86, p. 97, Winter 1986-87, p. 83,* and *Winter 1987-88, p. 80*; and records.

Table 296.-- ADJUSTED GROSS INCOME AND INCOME TAX, BY SIZE OF ADJUSTED GROSS INCOME, FOR INDIVIDUAL FEDERAL INCOME TAX RETURNS: TAX YEARS 1984 TO 1986

Size of adjusted gross income	Number of returns	Adjusted gross income less deficit ($1,000)	Total income tax	
			Number of returns	Amount ($1,000)
1984				
All returns	461,424	9,322,406	392,619	1,224,322
Under $10,000	161,843	618,293	97,088	39,377
$10,000 under $15,000 ..	71,096	883,948	69,277	72,166
$15,000 under $50,000 ..	199,683	5,546,699	197,558	652,285
$50,000 and over	28,802	2,273,465	28,696	460,495
Median income	$14,843	...	...	...
1985				
All returns	470,745	9,965,599	401,174	1,303,224
Under $10,000	157,592	594,482	92,534	37,405
$10,000 under $15,000 ..	71,127	885,637	69,041	70,943
$15,000 under $50,000 ..	206,162	5,756,704	203,839	666,567
$50,000 and over	35,864	2,728,775	35,760	528,309
Median income	$16,130	...	...	...
1986				
All returns	485,014	10,959,168	413,710	1,517,040
Under $10,000	155,888	580,153	88,376	40,557
$10,000 under $15,000 ..	70,147	873,927	68,094	68,448
$15,000 under $50,000 ..	216,111	6,054,658	214,454	699,212
$50,000 and over	42,868	3,450,430	42,786	708,822
Median income	$17,668	...	...	...

Source: U.S. Treasury Department, Internal Revenue Service, Statistics of Income--1984, 1985 and 1986, Individual Master File.

Table 297.-- CHARACTERISTICS OF INDIVIDUAL FEDERAL INCOME TAX RETURNS: TAX YEAR 1986

Subject	Number of returns	Amount ($1,000)
All returns and adjusted gross income (AGI) ...	485,014	10,959,168
Salaries and wages ...	417,709	8,871,259
Dividends after exclusion ...	78,527	217,571
Interest ...	358,642	690,703
Unemployment compensation in AGI ...	17,107	24,777
Itemized deductions ...	200,457	2,234,375
Tax liability ...	413,710	1,517,040
Earned income credit ...	17,780	5,332

Source: U.S. Treasury Department, Internal Revenue Service, SOI Bulletin, Winter 1987-88, pp. 80-82.

Table 298.-- INTERNAL REVENUE SERVICE OPERATIONS: 1985 TO 1987

Subject	1985	1986	1987
Internal revenue collections ($1,000) ...	2,116,774	2,337,030	2,809,135
Individual income and employment taxes ...	1,876,866	2,040,878	2,479,536
Total returns filed ...	797,835	859,789	889,779
Individual income tax ...	459,491	472,022	484,804
Returns examined ...	8,197	7,326	5,101
Individual ...	7,359	6,545	4,429
Additional tax and penalties recommended after examination ($1,000) ...	42,613	88,471	37,496
Individual ...	20,631	43,577	16,953
Costs incurred ($1,000) ...	8,638	8,418	8,912

Source: Internal Revenue Service, Annual Report, 1985, 1986, and 1987.

Table 299.-- RESIDENT INDIVIDUAL STATE INCOME TAX RETURNS: TAX YEARS 1970 TO 1986

Year income was received	Number of resident returns	Adjusted gross income 1/ ($1,000)	Net taxable income ($1,000)	Tax liability ($1,000)
1970	304,365	2,645,390	1,743,908	108,446
1971	306,959	2,825,713	1,839,574	115,931
1972	321,669	3,071,919	1,977,779	126,422
1973	338,089	3,391,445	2,170,208	141,113
1974	351,867	3,705,597	2,407,936	160,460
1975	365,185	4,014,828	2,615,002	177,121
1976	372,484	4,279,268	2,832,875	195,542
1977	384,924	4,719,669	3,140,643	220,095
1978	409,218	5,455,155	3,718,082	266,497
1979	431,906	5,639,290	3,871,963	282,093
1980	423,858	6,506,757	4,275,817	321,738
1981	448,320	6,884,575	4,479,808	336,497
1982	422,535	6,912,014	4,469,031	339,108
1983	424,194	7,088,769	4,695,499	360,551
1984	422,245	7,604,199	4,980,484	387,300
1985	427,572	8,060,406	5,284,942	415,544
1986	426,532	8,340,211	5,493,138	437,263

1/ Exclusive of losses.

Source: Hawaii State Department of Taxation, Hawaii Income Patterns Individuals (annual).

Table 300.-- STATE INCOME TAX RESIDENT RETURNS ON INCOME RECEIVED DURING 1986, BY ADJUSTED GROSS INCOME CLASS

Adjusted gross income class	Number of returns	Adjusted gross income 1/ ($1,000)	Net taxable income 2/ ($1,000)	Tax liability ($1,000)
All resident returns ...	426,532	8,370,256	5,493,137	437,263
Taxable resident returns	334,060	8,171,627	5,493,137	437,263
$1,000, under $5,000	36,488	124,472	50,658	1,872
$5,000, under $10,000	55,436	410,497	249,827	14,143
$10,000, under $20,000	90,820	1,332,840	912,845	62,889
$20,000, under $30,000	56,838	1,406,509	954,586	72,201
$30,000, under $40,000	36,578	1,282,554	848,466	66,649
$40,000, under $50,000	25,071	1,118,605	744,424	60,822
$50,000, under $75,000	24,443	1,443,325	976,947	84,269
$75,000, under $100,000	4,910	413,937	289,696	26,787
$100,000 and over	3,476	638,888	465,688	47,631
Nontaxable resident returns ..	92,472	198,629	...	...
Loss	2,134	(30,046)	...	...
Under $5,000	81,057	91,073	...	...
$5,000, under $10,000	5,604	39,034	...	...
$10,000 and over	3,677	68,522	...	...

1/ Total and subtotals exclude losses.

2/ Excludes zero bracket amount of $297,700,900. Conforms to taxable income as defined prior to 1982.

Source: Hawaii State Department of Taxation, records.

Table 301.-- MEDIAN ADJUSTED GROSS INCOME OF RESIDENT STATE INCOME TAX RETURNS, BY TYPE OF RETURN, 1970 TO 1986, AND BY COUNTIES, 1986

[In dollars]

Year income was received	Taxable and nontaxable returns			Taxable returns only		
	All returns	Joint	Other 1/	All returns	Joint	Other 1/
1970	7,018	12,358	2,969	8,348	13,072	3,981
1971	7,366	12,685	2,962	8,936	13,497	4,263
1972	7,462	13,515	3,284	9,218	14,358	4,553
1973	7,680	14,114	3,262	9,666	15,189	4,650
1974	7,844	15,319	3,774	9,945	16,667	5,193
1975	8,140	16,350	3,890	10,448	17,706	5,406
1976	(NA)	(NA)	4,318	10,608	18,705	5,790
1977	8,726	17,716	4,236	11,057	19,718	5,838
1978	9,302	20,276	4,538	12,279	22,335	6,274
1979	8,738	20,073	4,757	11,804	22,636	6,875
1980	9,676	21,510	5,294	13,464	24,980	7,639
1981	10,220	23,321	5,794	14,737	26,881	8,455
1982	11,178	23,737	6,080	15,466	27,285	9,636
1983	11,297	25,047	6,432	15,937	29,076	10,009
1984	12,035	25,290	6,858	16,565	28,935	10,540
1985	12,488	25,838	7,087	17,124	29,870	10,710
1986	14,574	27,079	9,038	18,270	31,623	12,012
COUNTIES: 1986						
Honolulu ...	15,021	28,470	9,332	18,627	33,012	12,368
Maui	14,170	24,774	9,561	17,262	28,219	12,234
Hawaii	11,841	21,641	6,870	16,342	27,195	9,554
Kauai	13,934	25,101	7,914	19,112	28,866	10,190

NA Not available.

1/ Including single, married filing separately, and heads of households.

Source: Hawaii State Department of Taxation, Hawaii Income Patterns, Individuals (annual), and records.

Table 302.-- GENERAL EXCISE AND USE TAX BASE AND COLLECTIONS: 1986 AND 1987

[In thousands of dollars. Data are on a cash basis accounting]

Source of revenue	Tax base		Tax collections	
	1986	1987	1986	1987
All sources	26,290,777	29,529,241	777,961	869,039
Sources taxed at 4 percent	18,485,648	20,631,060	739,426	825,242
Retailing	9,239,373	10,097,233	369,575	403,889
Services	2,784,169	3,096,002	111,367	123,840
Contracting	1,808,024	2,142,964	72,321	85,719
Theater, amusement, radio	159,881	157,824	6,395	6,313
Interest	200,656	258,015	8,001	10,321
Commissions	365,485	465,826	14,645	18,633
Hotel rentals	1,212,782	1,457,812	48,511	58,312
All other rentals	2,065,668	2,216,891	82,627	88,676
Use (4 percent)	279,636	317,789	11,185	12,712
All others	369,974	420,704	14,799	16,828
Sources taxed at other rates 1/	7,805,129	8,898,181	38,535	43,796
Insurance solicitors	140,120	198,442	210	298
Sugar processing	336,334	385,842	1,682	1,929
Pineapple canning 2/	32,974	2,193	165	11
Producing	250,954	274,202	1,255	1,371
Manufacturing	568,532	595,140	2,843	2,976
Wholesaling	4,443,166	5,188,215	22,216	25,941
Services (intermediary)	127,992	148,557	640	743
Use (1/2 percent)	1,905,057	2,105,590	9,525	10,528

1/ Insurance solicitors at 0.15 percent; others at 0.5 percent.

2/ Most exported canned pineapple is now exempted from general excise taxes when major companies are granted foreign trade subzone status.

Source: Hawaii State Department of Taxation, General Excise and Use Tax Base and General Excise and Use Tax Collections (calendar year summary tables).

Table 303.-- REAL PROPERTY TAX VALUATIONS: ANNUALLY, 1978 TO 1988

[Thousands of dollars. As of January 1. Government parcels assessed at $1, 1983-1987, and at 100 percent thereafter]

Year	Assessment ratio 1/	Assessor's gross valuation			Valuation for tax rate purposes
		Total	Land	Improvement	
1978 ...	60	17,761,105	9,846,501	7,914,604	11,531,484
1979 ...	60	19,376,848	10,690,826	8,686,022	12,908,172
1980 ...	60	21,881,304	12,074,217	9,807,087	14,831,641
1981 ...	60	25,371,079	13,775,220	11,595,859	17,933,736
1982 ...	60	29,631,825	15,982,660	13,649,165	21,397,832
1983 ...	100	46,659,440	23,603,352	23,056,088	39,508,235
1984 ...	100	49,085,380	24,900,368	24,185,012	41,672,612
1985 ...	100	51,231,020	25,507,708	25,723,312	43,581,421
1986 ...	100	52,814,463	26,442,872	26,371,591	45,222,885
1987 ...	100	54,655,038	27,396,477	27,258,561	46,629,959
1988 ...	100	67,628,063	36,730,370	30,897,693	50,219,249

1/ Percent of fair market value.

Source: Hawaii State Department of Taxation, Real Property Tax Valuations and Tax Rates (annual release, through 1980); Honolulu Department of Finance, Real Property Assessment Division, Real Property Tax Valuations & Tax Rates for the Fiscal Year 1981-82, and Real Property Tax Valuations, Tax Rates, & Exemptions (annual, 1982 forward).

Table 304.-- REAL PROPERTY TAX VALUATIONS: 1986 TO 1988

[In thousands of dollars]

Subject	1986	1987	1988
Assessor's gross valuation 1/	52,814,463	54,655,038	67,628,063
Land	26,442,872	27,396,477	36,730,370
Improvement	26,371,591	27,258,561	30,897,693
Exemptions 1/	7,070,511	7,665,004	17,016,434
Assessor's net taxable valuation ..	45,743,952	46,990,034	50,611,629
Half of valuation on appeal	521,067	360,075	392,380
Number of appeals	3,562	2,354	1,626
Valuation for tax rate purposes ...	45,222,885	46,629,959	50,219,249
Land	24,183,369	24,837,828	26,908,933
Improvement	21,039,516	21,792,131	23,310,316
Amount to be raised by taxation 2/	334,281	344,518	364,357

1/ Government parcels assessed at $1 in 1986 and 1987 and 100 percent thereafter; see Data Book 1987, table 316, for estimated actual value in 1987.

2/ For fiscal years beginning July 1.

Source: City and County of Honolulu, Department of Finance, Real Property Assessment Division, Real Property Tax Valuations, Tax Rates, & Exemptions (annual).

Table 305.-- REAL PROPERTY TAX VALUATIONS, BY COUNTIES: 1988

[In thousands of dollars]

Subject	Honolulu	Maui	Hawaii	Kauai
Assessor's gross valuation 1/	50,934,395	7,806,952	5,679,608	3,207,108
Land	28,668,979	3,638,034	2,836,600	1,586,757
Improvement	22,205,416	4,168,918	2,843,008	1,620,351
Exemptions 1/	14,769,599	983,898	789,567	473,370
Assessor's net taxable valuation .	36,164,796	6,823,054	4,890,041	2,733,738
Half of valuation on appeal	210,986	127,330	50,706	23,358
Number of appeals	813	160	510	143
Valuation for tax rate purposes ..	35,953,810	6,695,724	4,859,335	2,710,380
Land	19,683,167	3,226,859	2,631,932	1,366,975
Improvement	16,270,643	3,468,865	2,227,403	1,343,405
Amount to be raised by taxation 2/	262,555	37,434	44,008	20,359

1/ Government parcels assessed at 100 percent; prior years at $1.

2/ For fiscal year beginning July 1.

Source: City and County of Honolulu, Department of Finance, Real Property Assessment Division, Real Property Tax Valuations, Tax Rates, & Exemptions, 1988-1989 Tax Year, State of Hawaii (July 1988), pp. 2-5.

Table 306.-- REAL PROPERTY TAX EXEMPTIONS, BY TYPE: 1988

Type of exemption	Number	Amount 1/ ($1,000)
All exemptions	185,857	17,746,347
Federal government	405	2,394,772
State government	5,761	5,650,914
County government	2,861	1,638,503
Hawaiian Homes Commission	854	58,194
Homes--fee	126,563	3,753,023
Homes--leasehold	33,579	873,902
Churches	1,387	612,434
Government leases	122	57,812
Hospitals	74	295,580
Low-moderate income housing	110	299,073
Charitable organizations	590	347,445
Public utilities	777	332,266
Schools	129	361,687
All others	12,645	1,070,742

1/ Includes government parcels at actual value and exemptions on federal leases, if any.

Source: City and County of Honolulu, Department of Finance, Real Property Assessment Division, Real Property Tax Valuations, Tax Rates & Exemptions, 1988-1989 Tax Year, State of Hawaii (July 1988), p. 6.

Table 307.-- REAL PROPERTY TAX VALUATIONS, BY LAND USE CLASSES: 1988

[In thousands of dollars]

Land use class	Gross valuation, Jan. 1, 1988 1/			Amounts to be raised by taxation, fiscal 1988-89
	Total	Land	Improvement	
All classes	67,628,063	36,730,370	30,897,693	364,357
Improved residential ...	31,268,310	18,280,416	12,987,894	148,243
Apartment	9,612,160	3,243,358	6,368,802	52,065
Commercial	7,835,232	3,983,886	3,851,346	54,010
Industrial	6,551,082	4,937,131	1,613,951	32,794
Agricultural	3,301,469	2,124,981	1,176,488	21,774
Conservation	657,411	568,152	89,259	2,514
Hotel/resort	5,459,123	1,568,513	3,890,610	47,072
Unimproved residential .	2,943,276	2,023,933	919,343	5,884

1/ Government parcels assessed at 100 percent, prior years at $1.

Source: City and County of Honolulu, Department of Finance, Real Property Assessment Division, Real Property Tax Valuations, Tax Rates, & Exemptions, 1988-1989 Tax Year, State of Hawaii (July 1988).

Table 308.-- REAL PROPERTY TAX RATES, BY COUNTIES: FISCAL YEAR 1988-1989

[Dollars per $1,000 net taxable value]

Land use class	Honolulu	Maui	Hawaii	Kauai
Land:				
Improved residential	6.09	4.75	8.50	6.45
Unimproved residential	6.56	4.75	10.00	6.45
Apartment	6.09	4.75	10.00	8.70
Hotel/resort	10.71	7.00	10.00	8.70
Commercial	9.45	6.00	10.00	8.70
Industrial	9.45	6.00	10.00	8.70
Agricultural	9.00	4.75	10.00	8.70
Conservation	9.00	4.75	10.00	8.70
Improvement:				
Improved residential	6.56	4.75	8.50	5.81
Unimproved residential	6.56	4.75	8.50	5.81
Apartment	6.56	4.75	8.50	8.25
Hotel/resort	10.71	7.00	8.50	8.25
Commercial	9.45	6.00	8.50	8.25
Industrial	9.45	6.00	8.50	8.25
Agricultural	9.00	4.75	8.50	8.25
Conservation	9.00	4.75	8.50	8.25

Source: City and County of Honolulu, Department of Finance, Real Property Assessment Division, *Real Property Tax Valuations, Tax Rates, & Exemptions, 1988-1989 Tax Year, State of Hawaii* (July 1988), p. 8.

Table 309.-- FEDERAL EXPENDITURES IN HAWAII: 1968 TO 1987

[Millions of dollars. For fiscal years ended June 30 through 1976 and September 30 thereafter]

Fiscal year	Amount	Fiscal year	Amount	Fiscal year	Amount
1968	848	1975	2,060	1982	3,506
1969	988	1976	2,162	1983	4,055
1970	964	1977	2,066	1984	4,232
1971	1,075	1978	2,507	1985	4,568
1972	1,173	1979	2,659	1986	4,643
1973	1,435	1980	3,151	1987	4,759
1974	1,644	1981	3,811		

Source: U.S. Office of Economic Opportunity (1968-1975) and U.S. Community Services Administration (1976-1980), Federal Outlays in Hawaii (annual report, 1968-1976) and Geographic Distribution of Federal Funds in Hawaii (annual report, 1977-1980); U.S. Bureau of the Census, Federal Expenditures by State for Fiscal Year 1987 (March 1988), p. 39.

Table 310.-- FEDERAL EXPENDITURES IN HAWAII, BY TYPES: FISCAL YEARS 1982 TO 1987

[Millions of dollars]

Type of expenditure	1982	1983	1984	1985	1986	1987
All categories	3,506	4,055	4,232	4,568	4,643	4,759
Grants to State and local governments	408	457	459	436	473	460
Salaries and wages	1,615	1,736	1,809	1,942	1,961	2,073
Direct payments for individuals	1,106	1,253	1,321	1,444	1,517	1,617
Procurement	358	535	577	672	619	525
Other direct expenditures	19	74	66	73	73	84
Department of Defense	1,932	2,198	2,324	2,553	2,486	2,503
Other federal agencies	1,573	1,857	1,908	2,015	2,158	2,256

Source: U.S. Bureau of the Census, Federal Expenditures by State for Fiscal Year 1987 (March 1988), pp. 38-44, and letter dated April 29, 1986.

Table 311.-- PER CAPITA FEDERAL EXPENDITURES IN HAWAII, BY TYPES: FISCAL YEAR 1987

Category	Amount (dollars)	Percent of U.S.	Rank 1/
All categories	4,394	128.0	8
Grants to State and local governments	424	97.0	33
Salaries and wages	1,914	372.7	3
Direct payments for individuals	1,493	96.1	34
Procurement	485	61.0	33
Other direct expenditures	78	58.4	37

1/ Out of 50 States, D.C., and 5 territories. Excluding the 5 territories, Hawaii ranked 7th for the all-categories total.

Source: U.S. Bureau of the Census, Federal Expenditures by State for Fiscal Year 1987 (March 1988), table 8.

Table 312.-- DIRECT FEDERAL EXPENDITURES OR OBLIGATIONS IN HAWAII, BY COUNTIES: FISCAL YEAR 1987

[Thousands of dollars]

County	All agencies	Department of Defense	All other agencies
State total 1/	4,811,882	2,502,859	2,309,023
City and County of Honolulu	4,151,336	2,403,980	1,747,356
Hawaii County	223,926	20,495	203,431
Kauai County	133,200	50,307	82,893
Maui County	171,449	28,077	143,372
State undistributed	131,972	-	131,972

1/ Figures differ somewhat from those in tables 309 and 310, because of treatment of Federal grants to State and local governments. In those tables, figure represented actual expenditures; in this table, Federal grants generally represent obligations and include payments to State and local governments, and grants to nongovernmental recipients (see source, p. viii).

Source: U.S. Bureau of the Census, Consolidated Federal Funds Report, Fiscal Year 1987, Vol. I: County Areas (March 1988), pp. 14-15.

Table 313.-- PUBLIC BONDED DEBT OF STATE AND COUNTY GOVERNMENTS: 1977 TO 1987

[In millions of dollars. As of December 31]

Year	Total bonded debt 1/	State debt	County debt			
			Honolulu	Maui	Hawaii	Kauai
1977	1,775.7	1,483.1	226.9	19.6	34.6	11.5
1978	1,916.8	1,607.1	238.5	18.2	37.3	15.7
1979	1,971.9	1,677.6	224.3	16.8	38.3	14.9
1980	2,054.3	1,764.9	207.5	22.4	45.6	13.8
1981	2,217.9	1,883.6	235.5	21.1	46.2	31.4
1982	2,359.5	2,039.3	235.5	19.8	45.8	19.0
1983	2,545.4	2,235.8	219.5	19.0	52.1	19.0
1984	2,715.7	2,391.5	221.0	33.5	50.9	18.8
1985	3,131.5	2,621.2	404.0	30.8	56.7	18.8
1986	3,311.8	2,720.4	456.8	47.2	69.3	18.0
1987	3,298.4	2,700.7	448.7	48.8	67.3	32.9

1/ Outstanding state and county bonds, both general obligation and revenue bonds.

Source: Tax Foundation of Hawaii, Government in Hawaii (annual).

Table 314.-- STATE GENERAL OBLIGATION BOND DEBT: 1982 TO 1987

[In dollars. As of June 30]

Year	Debt	Year	Debt
1982	1,464,486,784	1985	1,697,635,620
1983	1,590,350,534	1986	1,734,971,350
1984	1,641,694,840	1987	1,823,677,080

Source: Hawaii State Department of Accounting and General Services,records.

Table 315.-- GOVERNMENT WORKERS, BY LEVEL OF GOVERNMENT, CIVIL SERVICE STATUS, AND MEMBERSHIP IN STATE RETIREMENT SYSTEM: 1940 TO 1987

Year	Government workers (annual average)				State civil service workers 1/	State retirement system members 2/
	All levels	Federal	Terr. or State	County		
1940	22,136	11,139	6,245	4,752	2,616	8,352
1945	78,846	66,248	7,231	5,367	3,772	12,662
1950	33,140	18,891	7,955	6,294	5,280	16,120
1960	49,510	27,010	14,620	7,880	6,790	24,092
1970	73,640	33,380	30,600	9,660	10,166	38,912
1980	89,050	30,000	45,150	13,900	17,327	48,868
1985	93,300	32,400	47,400	13,500	18,472	51,767
1986	93,850	32,100	48,600	13,150	18,411	47,662
1987	95,600	32,350	49,900	13,400	18,956	48,262

1/ December 31 through 1960 and June 30 thereafter. State or Territorial workers in civil service system. Data exclude county employees, also covered by civil service.

2/ June 30 through 1960 and March 31 thereafter. Includes State or Territorial employees, county employees, and inactive members (those no longer employed by the State, Territory, or counties who have remained in the System), but excludes pensioners.

Source: Robert C. Schmitt, Historical Statistics of Hawaii (University Press of Hawaii, 1978), pp. 616-617; The State of Hawaii Data Book 1978, p. 158; Hawaii State Department of Labor and Industrial Relations, Labor Force Data Book (March 1978, as updated); Hawaii State Department of Personnel Services, Annual Report for 1980-1986; Employees' Retirement System of the State of Hawaii, 58th Annual Report, June 30, 1984, p. 17, as updated.

Table 316.-- STATE CIVIL SERVICE: 1985 TO 1987

[Years ended June 30. The State civil service system does not cover elected or appointed officials, public school teachers, university faculty, and other exempt positions]

Subject	1985	1986	1987
Civil service employees, June 30	18,472	18,411	18,956
Department of Education	4,024	3,998	4,374
Department of Health	4,747	4,636	4,598
Department of Social Services and Housing	2,551	2,705	2,912
Department of Transportation	1,895	1,864	1,851
University of Hawaii	1,563	1,539	1,511
All others	3,692	3,669	3,710
Separations	1,751	1,919	2,032
Promotions	613	685	872
Transfers, demotions, and returns after promotions	765	788	771
Classification actions processed	3,107	3,144	3,892
Applications received	24,681	24,521	25,434
Applicants screened	23,484	22,357	22,814
Applicants placed on eligible list	12,323	8,056	10,977
Vacancies filled by competitive and noncompetitive actions	2,034	2,160	2,845

Source: Hawaii State Department of Personnel Services, Annual Report, 1987, pp. 6, 10, 12, and 13.

Table 317.-- STATE SALARY SCHEDULES FOR SELECTED LEVELS: 1986 TO 1988

[In dollars per month. Data refer to lowest and highest rates among six bargaining units and excluded managerial compensation plan employees classified under the salary range schedules]

Salary range	Lowest			Highest		
	July 1986	Oct. 1987	Oct. 1988	July 1986	Oct. 1987	Oct. 1988
SR-4	955	988	988	1,520	1,596	1,596
SR-11	1,151	1,206	1,206	1,985	2,084	2,084
SR-21	1,668	1,723	1,825	3,002	3,152	3,152
SR-31	2,620	2,675	2,836	4,799	5,039	5,392

Source: Hawaii State Department of Personnel Services, salary schedules and conversion tables.

Table 318.-- SALARIES OF SELECTED GOVERNMENT OFFICIALS: 1976, 1986, 1987, AND 1988

[Annual rates, in dollars, as of January 1]

Government official	1976	1986 1/	1987	1988
Governor	50,000	80,000	80,000	80,000
Lieutenant Governor	45,000	76,000	76,000	76,000
Mayor, Honolulu	44,903	75,000	77,175	78,333
Mayor, Hawaii	43,644	49,992	63,792	63,792
Mayor, Maui	36,070	62,000	62,000	75,000
Mayor, Kauai	34,000	49,920	52,416	52,416
Chief Justice, Supreme Court	47,500	80,000	80,000	80,000
Associate Justice, Supreme Court ...	45,000	78,500	78,500	78,500
President, University of Hawaii	45,000	95,000	95,000	95,000

1/ Includes retroactive raises approved May 12, 1986.

Source: Hawaii Revised Statutes; SLH 1986, Act 128; Salary Commission of the City and County of Honolulu, Final Report and Salary Schedule; Hawaii, Maui, and Kauai County ordinances; DBED telephone survey.

Section 10

NATIONAL DEFENSE

This section presents statistics relating to the armed forces and their dependents, national guard strength, civilian employment in national defense, veterans, land controlled by the Department of Defense, military housing, and expenditures by the armed forces. Further information appears in sections 1, 2, 6, 12, 13, 14, and 23.

There were approximately 64,000 officers and enlisted men (including 3,400 aboard ships homeported in Hawaii) and 70,000 military dependents in the Islands as of July 1, 1988. This number has been relatively stable in recent years, but at the height of World War II more than 400,000 uniformed personnel were present. The Navy alone accounts for 41 percent of the current total. More than 10,000 Hawaii residents were in the armed forces worldwide in 1988. The importance of national defense in Hawaii can be further measured by total expenditures ($1.86 billion), military prime contract awards ($461 million), civilian employment (20,000), veterans in civil life (101,000), military personnel receiving retired pay (10,700, receiving $12.7 million monthly), military-connected pupils in public schools (20,500), military housing (19,200 units), and land owned or controlled by the armed forces (over 265,000 acres). Defense expenditures are second only to tourism as a source of income to Hawaii.

The Department of Business and Economic Development has issued periodic reports on *Military Personnel and Dependents in Hawaii* since 1959. Other published sources include reports of the U.S. Department of Defense, U.S. Bureau of the Census, Administrator of Veterans Affairs, and the Hawaii State Department of Labor and Industrial Relations, Department of Defense, and Department of Education. Definitions used by these sources frequently differ to some degree, and care is accordingly necessary in comparing data issued by two or more agencies. In mid-1982, for example, the number of armed forces in Hawaii was reported as 53,915 by DOD, 54,879 by the Bureau of the Census, and 61,107 by the local commanding officers reporting to DBED. *Historical Statistics of Hawaii*, Section 26, includes series on the armed forces dating back to 1795. Section 11 of the *Statistical Abstract of the United States: 1988* presents data on national defense and veterans affairs for other states and the entire nation.

Table 319.-- HAWAII RESIDENTS ON ACTIVE DUTY IN THE ARMED FORCES WORLDWIDE: 1970 TO 1988

[As of June 30. Based on home of record]

Year	Number	Year	Number	Year	Number
1970	15,331	1983	11,641	1986	10,882
1975	10,640	1984	11,466	1987	10,896
1980	11,851	1985	10,827	1988	10,548

Source: U.S. Department of Defense, Defense Manpower Data Center, records.

Table 320.-- DEPARTMENT OF DEFENSE PERSONNEL AND DEPENDENTS: 1980 TO 1987

[As of September 30]

Year	Active-duty shorebased military personnel 1/	Dependents of active-duty military personnel 2/	Direct-hire civilian personnel 3/
1980	43,313	53,533	18,186
1981	44,141	50,324	18,814
1982	44,470	56,497	19,497
1983	44,651	51,119	20,005
1984	47,648	54,190	20,539
1985	46,875	55,552	20,762
1986	46,122	53,428	20,536
1987	47,262	52,438	20,243

1/ Excludes those performing civilian functions, Navy personnel afloat unless temporarily shorebased, and all Coast Guard personnel.

2/ Includes dependents of Hawaii residents stationed out of the State, if those dependents remained in Hawaii.

3/ Military functions only.

Source: U.S. Department of Defense, Washington Headquarters Services, Directorate for Information, Operations and Reports, Department of Defense Selected Manpower Statistics (annual).

Table 321.-- MILITARY PERSONNEL, DEPENDENTS, AND FAMILIES: 1970 TO 1988

[Includes Navy, Marine Corps, and Coast Guard personnel afloat on a homeported basis. Data differ somewhat from similar series compiled by the Bureau of the Census and Department of Defense, reported elsewhere in this volume]

Date		Personnel and dependents	Military personnel 1/			Dependents in Hawaii	Military families
			Total	Ashore	Aboard ship		
1970:	April 1 ..	117,943	56,085	41,362	14,723	61,858	20,558
	July 1 ...	111,549	53,768	39,822	13,946	57,781	20,568
1971:	July 1 ...	112,943	50,762	35,824	14,938	62,181	23,184
1972:	July 1 ...	118,760	52,538	37,124	15,414	66,222	23,688
1973:	July 1 ...	128,082	57,783	43,064	14,719	70,299	25,264
1974:	July 1 ...	126,882	58,558	45,369	13,189	68,324	29,082
1975:	July 1 ...	121,911	58,205	45,589	12,616	63,706	26,122
1976:	July 1 ...	126,694	59,737	46,453	13,284	66,957	26,395
1977:	July 1 ...	123,471	58,466	45,811	12,655	65,005	25,927
1978:	July 1 ...	119,200	58,106	46,001	12,105	61,094	25,400
1979:	July 1 ...	122,386	57,868	44,915	12,953	64,518	27,835
1980:	April 1 ..	125,042	61,019	48,813	12,206	64,023	26,129
1981:	July 1 ...	125,865	61,521	46,255	15,266	64,344	25,893
1982:	July 1 ...	127,816	61,107	54,184	6,923	66,709	26,009
1983:	July 1 ...	125,273	59,021	53,755	5,266	66,252	26,791
1984:	July 1 ...	127,887	60,804	56,321	4,483	67,083	31,415
1985:	July 1 ...	122,286	58,005	53,848	4,157	64,281	29,997
1986:	July 1 ...	124,794	58,584	53,616	4,968	66,210	29,481
1987:	July 1 ...	125,127	60,277	56,322	3,955	64,850	32,038
1988:	July 1 ...	133,958	64,053	60,621	3,432	69,905	34,535

1/ Beginning in 1982, ship crews living ashore are included with the ashore total.

Source: Hawaii State Department of Business and Economic Development, Military Personnel and Dependents in Hawaii, 1987 (Statistical Report 207, November 30, 1987), table 1, as updated, and forthcoming report.

Table 322.-- MILITARY PERSONNEL, DEPENDENTS, AND FAMILIES, BY SERVICE AND ISLAND: JULY 1, 1988

[See headnote to preceding table]

Island and service	Personnel and dependents	Military personnel				Dependents in Hawaii	Military families
		Ashore and afloat	Living ashore		Living aboard ship		
			In hsg. units	In barracks			
State total	133,958	64,053	45,244	15,377	3,432	69,905	34,535
By island:							
Oahu	133,419	63,824	45,091	15,303	3,430	69,595	34,417
Hawaii	169	46	29	16	1	123	26
Maui	86	35	34	-	1	51	12
Kauai	269	133	89	44	-	136	80
Kure Atoll	15	15	1	14	-	-	-
By service:							
Air Force	14,131	5,588	4,432	1,156	-	8,543	3,831
Army	43,353	18,576	13,118	5,458	-	24,777	12,257
Coast Guard ...	2,110	1,018	778	101	139	1,092	536
Marine Corps ..	19,134	10,926	5,998	4,928	-	8,208	5,088
Navy	55,230	27,945	20,918	3,734	3,293	27,285	12,823

Source: Hawaii State Department of Business and Economic Development, Military Personnel and Dependents in Hawaii, 1987 (Statistical Report 207, November 30, 1987), table 2, as updated, and forthcoming report.

Table 323.-- NATIONAL GUARD STRENGTH: 1984 TO 1988

[Actual strength as of late June]

Service	1984	1985	1986	1987	1988
Total	5,866	6,096	5,882	5,814	5,839
Air National Guard ...	2,073	2,227	2,197	2,190	2,188
Army National Guard ..	3,793	3,869	3,685	3,624	3,651

Source: Hawaii State Department of Defense, Annual Report for 1984-1986, and records.

Table 324.-- DEPARTMENT OF DEFENSE PERSONNEL, MILITARY AND CIVILIAN, BY SERVICE: SEPTEMBER 30, 1987

Category	All services	Army	Navy	Air Force	Other DoD
Total	66,078	24,722	32,546	8,688	122
Military personnel 1/ .	45,396	19,264	19,945	6,187	-
Civilian personnel 2/ .	20,682	5,458	12,601	2,501	122

Footnotes and source follow next table.

Table 325.-- DEPARTMENT OF DEFENSE PERSONNEL, MILITARY AND CIVILIAN, BY LOCATION: SEPTEMBER 30, 1987

Installation or geographic area	Total DoD	Military personnel 1/	Civilian personnel 2/
State total	66,078	45,396	20,682
Aiea	1,079	772	307
Barbers Point NAS	2,388	2,008	380
Ford Island	441	407	34
Fort Shafter	2,093	-	2,093
Hickam AFB	8,299	6,130	2,169
Honolulu	4,198	2,318	1,880
Kaneohe	8,610	7,925	685
Kapalama	267	29	238
Kauai	224	129	95
Kunia	1,455	1,413	42
Lualualei	485	216	269
Pearl Harbor	16,485	7,314	9,171
Schofield Barracks	15,186	14,027	1,159
Tripler Army Medical Center	1,120	8	1,112
Wahiawa	838	634	204
Waialua	812	778	34
Wheeler AFB	1,586	1,104	482
Other	512	184	328

1/ Active duty. Navy figure is limited to shore-based personnel and excludes personnel afloat and temporary shore-based.

2/ Direct hire. Army and Air Force data include civil function personnel.

Source: U.S. Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports, Department of Defense Distribution of Personnel by State and by Selected Locations, September 30, 1987, p. 28.

Table 326.-- CIVILIAN EMPLOYMENT IN THE AIR FORCE, ARMY, AND NAVY: ANNUAL AVERAGES, 1982 TO 1987

Year	Total	Air Force	Army	Navy
1982	20,400	2,650	4,650	13,100
1983	20,850	2,650	4,850	13,350
1984	20,600	2,650	5,000	12,950
1985	20,750	2,650	5,400	12,700
1986	20,400	2,650	5,600	12,150
1987	20,050	2,550	5,600	11,900

Source: Hawaii State Department of Labor and Industrial Relations, Labor Force Data Book (March 1978), as revised annually through April 1988.

Table 327.-- MILITARY PRIME CONTRACT AWARDS, BY PROGRAM: 1985 TO 1987

[In thousands of dollars. Fiscal years ended September 30. Net value of Department of Defense prime contracts over $25,000]

Procurement program	1985	1986	1987
Total	626,153	562,843	461,449
Ships	20,971	12,556	14,352
Electronics and communication equipment ...	36,232	27,008	23,256
Petroleum	140,438	181,976	7,043
Construction	311,761	197,596	240,764
Services	94,151	108,205	150,039
All other procurement programs	22,600	35,502	25,995

Source: U.S. Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports, Department of Defense Prime Contract Awards by Region and State, Fiscal Years 1987, 1986, 1985, p. 29.

Table 328.-- DEFENSE EXPENDITURES: 1977 TO 1987

[In thousands of dollars. Does not include military retired pay, Hawaii National Guard expenditures, or U.S. Army Corps of Engineers contracts]

Year	All categories	Military payroll	Civilian payroll	Supplies, equipment, services
1977	1,086,561	432,754	325,778	328,029
1978	1,155,517	465,449	354,530	335,538
1979	1,221,784	497,840	372,596	351,348
1980	1,317,402	533,691	418,759	364,952
1981	1,449,328	612,761	450,684	385,883
1982	1,693,410	716,841	508,569	468,000
1983	1,848,175	793,782	558,220	496,175
1984	1,867,189	828,787	582,531	455,872
1985 1/	1,965,430	839,851	611,437	514,138
1986 1/	1,784,868	822,954	601,476	360,437
1987 1/	1,855,670	860,174	576,591	418,904
SERVICE: 1986				
Air Force	202,407	106,788	38,708	56,912
Army	658,609	385,013	149,253	124,343
Coast Guard	31,855	25,170	3,765	2,919
Navy and Marine Corps 1/	891,996	305,983	409,750	176,263
SERVICE: 1987				
Air Force	212,380	107,715	37,501	67,164
Army	744,307	418,711	119,431	206,165
Coast Guard	27,508	22,185	3,008	2,315
Navy and Marine Corps 1/	871,474	311,562	416,651	143,261

1/ Military payroll partly estimated due to change in reporting method.

Source: Quarterly reports submitted to DBED by armed forces.

Table 329.-- ACREAGE OWNED OR CONTROLLED BY THE U.S. DEPARTMENT OF DEFENSE, BY BRANCH OF SERVICE AND BY ISLANDS: APRIL 1987

Branch of service and island	Total acreage	Owned in fee	Ceded land 1/	Other land 2/
All branches	265,402	26,406	146,187	92,809
Branch of service:				
Air Force	6,081	2,496	2,827	757
Army	165,807	4,058	101,688	60,061
Navy and Marine Corps	93,514	19,851	41,672	31,991
Island:				
Hawaii	108,928	4	84,819	24,105
Maui	8	5	-	3
Kahoolawe	28,777	-	28,777	-
Lanai	-	-	-	-
Molokai	6,319	-	12	6,307
Oahu	93,888	26,397	30,546	36,945
Kauai	27,371	-	1,925	25,446
Niihau	3	-	-	3
Kaula	108	-	108	-
Northwestern Hawaiian Islands, exc. Midway ...	-	-	-	-

1/ Includes 4,962 acres of submerged Navy land in Pearl Harbor.

2/ Held under lease, license, or permit. Includes 31,283 acres of Navy land used for intermittent training with no permanent occupancy and subject to restrictions.

Source: Hawaii State Department of Business and Economic Development, Land Ownership in Hawaii 1987 (Statistical Report 208, September 1988), pp. 7-10.

Table 330.-- HOUSING UNITS OWNED OR OPERATED BY THE ARMED FORCES, BY COUNTIES: APRIL 1, 1987 AND 1988

Year	State total	Honolulu	Hawaii	Kauai	Maui
1987	19,211	19,125	18	62	6
1988	19,341	19,254	15	66	6

Source: Hawaii State Department of Business and Economic Development, Housing Unit Estimates for Hawaii, 1970-1987 (Statistical Report 204, October 23, 1987), table 8, as updated.

Table 331.-- VETERANS IN CIVIL LIFE: 1978 AND 1988

Period of service	March 31, 1978	March 31, 1988
Total veterans 1/	93,000	101,000
Wartime veterans 1/	80,000	80,000
Vietnam era	33,000	37,000
Korean conflict	21,000	21,000
World War II	31,000	32,000
World War I	1,000	(Z)
Peacetime veterans	13,000	21,000
Post-Vietnam era only 2/	1,000	9,000
Between Korea and Vietnam only	12,000	11,000
Other peacetime veterans 3/	...	1,000

Z Under 500.

1/ Veterans who served in more than one conflict are counted only once in the totals and subtotals.

2/ Service only after May 7, 1975.

3/ Includes those who served only between World War I and World War II, and those who served only between World War II and the Korean conflict.

Source: Veterans Administration, Veteran Population (semi-annual report).

Table 332.-- VETERAN STATUS BY COUNTIES: 1980

Subject	State total	Counties				
		Hawaii	Honolulu	Kala-wao	Kauai	Maui
Male veterans	98,633	10,117	77,356	12	4,133	7,015
Percent of civilian males, 16 years and over	31.1	29.9	32.0	13.6	28.4	26.4
Female veterans	5,141	359	4,381	-	129	272
Percent of civilian females, 16 years and over	1.5	1.1	1.6	0	0.9	1.0

Source: U.S. Bureau of the Census, 1980 Census of Population, General Social and Economic Characteristics, Hawaii, PC80-1-C13 (June 1983), table 70 and 179.

Table 333.-- MILITARY PERSONNEL RECEIVING RETIRED PAY FROM THE DEPARTMENT OF DEFENSE: SEPTEMBER 30, 1987

Service	Number of personnel		Monthly payment 2/ ($1,000)	Payment per person paid 2/ (dollars)
	Retired 1/	Paid by DOD		
Dept. of Defense	11,749	10,750	12,723	1,184
Army	4,809	4,290	4,730	1,103
Navy	3,257	3,012	3,597	1,194
Marine Corps	800	716	957	1,337
Air Force	2,883	2,732	3,438	1,258

1/ Includes retired personnel not receiving retired pay from the Department of Defense.

2/ Before deductions for withholding taxes and allotments, but after deductions for survivor benefits, dual compensation, etc.

Source: U.S. Department of Defense, Office of the Actuary, Defense Manpower Data Center, FY 1987 DOD Statistical Report on the Military Retirement System (1988), p. 20.

Table 334.-- WAR CASUALTIES OF HAWAII RESIDENTS IN THE ARMED FORCES: 1914 TO 1976

[Data refer to U.S. military personnel whose home state or pre-service residence of record was Hawaii]

War	Personnel serving	Battle deaths	Nonbattle deaths	Wounded
World War I 1/	9,800	102		(NA)
World War II	28,008	658	138	(NA)
Korean conflict	(NA)	403	(NA)	923
Vietnam conflict	12,970	221	51	(NA)

NA Not available.

1/ Data include nearly 200 Hawaii residents serving (and 22 dying) with the British armed forces, many prior to the U.S. entry into World War I. Of the 102 war casualties, only 14 occurred overseas prior to the armistice; 61 took place in Hawaii or North America or after the armistice, and the time or place of 27 is unknown.

Source: Hawaii State Department of Planning and Economic Development, *Military Personnel and Dependents in Hawaii, July 1977* (Statistical Report 120, September 9, 1977), tables 6 and 7.

Section 11

SOCIAL INSURANCE AND HUMAN SERVICES

This section presents data related to governmental expenditures on social welfare; programs for old-age, survivors, disability and health insurance; public employee retirement; unemployment insurance; aid to the needy; and child and other welfare services. Also included here are selected statistics on United Way campaigns, foundations, and the quality of life. Related data are cited in Sections 9 and 13.

Total social welfare costs reached $314 million in fiscal 1987, compared with $194 million a decade earlier. About 55 percent of the 1987 total came from State funds and the remainder from the Federal government. The monthly average number of persons served by major welfare programs in 1987 was 51,000, or 4.7 percent of the resident population of the State. Almost 56 percent of all public assistance payments and 45 percent of all recipient cases were accounted for by aid to families with dependent children. The average monthly payment per case for public assistance was $367, or 19 percent more than in 1977. Participation in the food stamp program included 33,000 households and 87,000 persons. Among workers receiving unemployment compensation in 1987, weekly benefits averaged $149. About 138,000 Hawaii residents were receiving Social Security benefits in 1987, and about 104,000 were enrolled for Medicare. There were also 19,000 State and county government pensioners in 1987, with annual benefits of $199 million. Child adoptions in 1986 numbered 581. Seventy-six foundations reported assets of $239 million when most recently surveyed. The United Way reported agency allocations of $9.5 million on Oahu and $1.8 million on the Neighbor Islands in 1987. A recent comparative study of the "quality of life" in 300 American metropolitan areas ranked Honolulu forty-third.

Major data sources include reports and records of the U.S. Department of Health and Human Services, the Hawaii State Department of Human Services (formerly Social Services and Housing), the Hawaii State Department of Labor and Industrial Relations, the Hawaii State Employees' Retirement System, and the Aloha United Way. Historical Statistics of Hawaii, Section 8, contains data for earlier years. Section 12 of the Statistical Abstract of the United States: 1988 presents comparable Mainland data.

Table 335.-- PERSONS SERVED AND AVERAGE PAYMENTS, FOR PROGRAMS ADMINISTERED BY THE HAWAII STATE DEPARTMENT OF HUMAN SERVICES: 1977 TO 1987, MONTHLY AVERAGES

[Years ended June 30]

Year	Major programs 1/		Service cases	Medical payments 2/		Average money payments 3/ (dollars)	
	Recipients	Individuals		Cases	Individuals	Per case	Per individual
1977	36,534	72,054	12,610	12,303	13,329	307.76	114.52
1978	28,575	75,485	15,000	14,381	15,572	321.63	121.75
1979	27,399	72,928	16,993	13,796	14,890	334.90	150.99
1980	27,219	71,693	16,312	12,932	13,598	337.59	128.17
1981	27,604	72,480	15,281	11,763	12,104	342.67	130.68
1982	26,130	68,835	8,124	11,629	12,228	355.42	135.05
1983	24,157	64,305	6,443	12,858	13,186	371.00	139.56
1984	23,378	62,430	6,586	12,642	12,939	369.92	138.72
1985	22,212	59,561	6,832	12,286	12,519	368.17	137.50
1986	21,119	56,140	7,186	12,481	12,710	368.25	138.67
1987	19,531	50,954	7,402	13,650	13,858	367.00	140.86
COUNTIES: 1987							
Hawaii ..	4,107	10,878	1,154	1,875	1,920	374.75	141.68
Maui	1,297	3,635	626	976	992	366.50	130.86
Honolulu	13,369	34,414	4,936	10,078	10,215	365.75	142.29
Kauai ...	758	2,027	686	721	731	347.83	130.22

1/ Old age assistance, aid to disabled, aid to families with dependent children, AFDC unemployed parents, AFDC foster care, child welfare foster care, and general assistance.

2/ Ineligible for money assistance, receiving medical payment only. Data for 1985 and 1986 are revised from Data Book 1987, table 345.

3/ Gross obligation basis.

Source: Hawaii State Department of Human Services, records.

Table 336.-- PERCENT OF RESIDENT POPULATION SERVED BY MAJOR PROGRAMS ADMINISTERED BY THE HAWAII STATE DEPARTMENT OF HUMAN SERVICES, BY COUNTIES: 1986 AND 1987

[Based on fiscal year program data and July population estimates]

Year	State	Hawaii	Maui	Honolulu	Kauai
1986	5.3	10.1	4.7	4.7	5.2
1987	4.7	9.5	4.0	4.1	4.3

Source: Hawaii State Department of Human Services, records; present volume, table 5.

Table 337.-- SOCIAL WELFARE COSTS: 1977 TO 1987

[Thousands of dollars. Years ended June 30]

Year	Total cost	By source of funds		By expenditure category			
		Federal	State	Administration	Medical payments	Money payments	Social service costs
1977	194,203	79,151	115,052	13,505	69,677	100,322	10,699
1978	230,111	93,490	136,621	14,206	93,399	111,275	11,231
1979	244,898	101,411	143,487	15,250	104,694	113,854	11,100
1980	255,280	109,734	145,547	18,999	112,024	112,793	11,464
1981	286,709	131,652	155,057	19,595	135,541	118,346	13,227
1982	289,391	121,911	167,480	22,271	143,068	114,811	9,241
1983	303,782	133,498	170,284	26,616	157,996	111,185	7,985
1984	335,986	148,902	187,084	35,482	185,730	107,508	7,266
1985	294,406	127,052	167,354	33,604	145,559	103,611	11,632
1986	328,804	147,865	180,939	41,637	175,887	98,738	12,541
1987	314,025	141,185	172,840	37,899	172,966	91,909	11,251

Source: Hawaii State Department of Human Services, records.

Table 338.-- PUBLIC ASSISTANCE PAYMENTS AND RECIPIENTS: 1986 AND 1987

[Years ended June 30]

Program	Total payments ($1,000)		Recipient cases (monthly average)		Average monthly payment (dollars)	
	1986	1987	1986	1987	1986	1987
All programs	127,920	124,160	32,857	31,878	324	325
Old age assistance 1/ .	11,813	12,429	4,820	4,924	204	210
Aid to the blind 1/ ...	550	562	181	124	253	269
Aid to disabled 1/	20,583	23,042	6,286	6,665	273	288
Aid to families with dependent children 2/	74,915	69,262	15,429	14,334	405	403
Child welfare foster care	1,907	2,275	702	784	226	242
General assistance	18,152	16,590	5,439	4,997	278	277

1/ Assisted through the Federal Social Security Administration, with State supplements (Supplementary Security Payments) included.

2/ Includes AFDC unemployed parent and AFDC foster care.

Source: Hawaii State Department of Human Services, records.

Table 339.-- PARTICIPATION IN FOOD STAMP PROGRAM: 1986 AND 1987

[Years ended June 30]

Subject	1986	1987
Households, total participating 1/	35,652	33,423
Public assistance recipients	17,558	16,167
Other participants 2/	18,094	17,256
Persons, total participating 1/	93,862	87,070
Public assistance recipients	50,602	46,288
Other participants 2/	43,260	40,782
Value of food stamps given to recipients ($1,000)	90,431	86,590

1/ Monthly averages.

2/ Not receiving public assistance (food stamps only).

Source: Hawaii State Department of Human Services, records.

Table 340.-- MEDICARE ENROLLMENT AND BENEFIT PAYMENTS: 1986 AND 1987

Coverage	All persons enrolled, July 1		Persons 65 and over enrolled, July 1		Estimated benefit payments (mil. dol.)	
	1986	1987	1986	1987	1986	1987
Hospital and/or medical insurance	104,520	112,817	96,640	104,441	220	234
Hospital insurance	101,530	109,353	93,640	100,977	139	139
Supplementary medical insurance	100,330	107,870	93,110	100,197	81	95
Hospital and medical insurance (both)	97,340	104,406	90,110	96,733	...	...

Source: U.S. Department of Health and Human Services, Health Care Financing Administration, Bureau of Data Management and Strategy, records.

Table 341.-- MEDICARE ENROLLMENT OF PERSONS 65 YEARS OLD AND OVER, BY SEX, BY COUNTIES: JULY 1, 1987

[Persons with hospital and/or medical coverage]

County	Both sexes	Male	Female
State total	104,439	50,553	53,886
City and County of Honolulu	75,906	35,968	39,938
Other counties	28,427	14,535	13,892
Hawaii	13,109	6,710	6,399
Kalawao	81	45	36
Kauai	5,765	3,025	2,740
Maui	9,472	4,755	4,717
County not reported	106	50	56

Source: U.S. Bureau of the Census, Population Division, Population Estimates Branch, memorandum dated June 23, 1988.

Table 342.-- RETIREMENT, SURVIVORS AND DISABILITY INSURANCE (OASDI) BENEFITS IN CURRENT-PAYMENT STATUS, BY TYPE OF BENEFIT AND COUNTY: DECEMBER 1987

Type of benefit and county	Number of OASDI benefits	Amount of monthly benefits ($1,000)
Total	138,472	62,847
TYPE OF BENEFIT		
Retirement program:		
Retired workers 1/	92,467	46,883
Wives or husbands 1/	10,896	2,644
Children	4,563	888
Survivor program:		
Widows, widowers, or parents	13,721	6,076
Children	6,592	2,291
Disability program:		
Disabled workers	7,260	3,660
Wives or husbands	679	83
Children	2,294	322
Age 65 and over:		
Men	47,460	...
Women	51,039	...
COUNTY		
Hawaii	18,650	8,437
Honolulu	98,353	44,688
Kalawao	99	42
Kauai	7,905	3,534
Maui	13,465	6,146

1/ Includes special age 72 beneficiaries.

Source: U.S. Department of Health and Human Services, Social Security Administration, Office of Research and Statistics, records.

Table 343.-- SOCIAL SECURITY POPULATION AGE 65 AND OVER, BY SEX, AGE, AND COUNTY: 1985 AND 1987

[Persons covered by retirement and survivor insurance, including those in non-payment status]

Subject	June 1985	Dec. 1987
Total	89,964	102,032
Sex:		
Male	44,528	49,918
Female	45,436	52,114
Age:		
65 to 69 years	32,513	36,750
70 to 74 years	24,480	27,424
75 to 79 years	16,081	18,519
80 to 84 years	9,648	10,913
85 to 89 years	4,796	5,578
90 to 94 years	1,820	2,173
95 years and over	626	675
County:		
Hawaii	11,649	13,034
Honolulu	64,885	73,849
Kalawao	89	78
Kauai	5,032	5,688
Maui	8,309	9,383

Source: U.S. Department of Health and Human Services, Social Security Administration, Office of Research and Statistics, records.

Table 344.-- SOCIAL SECURITY BENEFICIARIES AND PAYMENTS: 1982 TO 1987

Year	Number of beneficiaries, December	Monthly payments, December ($1,000)	Annual payments (million dollars)
1982	118,690	43,029	498
1983	121,061	46,523	536
1984	125,012	50,529	578
1985	129,475	54,612	626
1986	133,520	57,629	667
1987	138,472	62,847	715

Source: U.S. Department of Health and Human Services, Social Security Administration, Office of Research and Statistics, records.

Table 345.-- HAWAII STATE EMPLOYEES' RETIREMENT SYSTEM: 1982 TO 1987

Year	Membership, 1/ March 31	Pensioners, March 31	Assets, 2/ June 30 ($1,000)	Total benefits paid 3/ ($1,000)	Average monthly pension 3/ (dollars)	Administration expenses 3/ (dollars)
1982 ..	49,806	13,787	1,668,028	104,935	437	1,373,452
1983 ..	51,578	14,755	1,935,832	124,784	466	1,272,181
1984 ..	51,602	15,264	2,235,686	135,632	491	1,250,890
1985 4/	51,767	16,438	2,326,594	378,087	521	2,292,754
1986 ..	47,662	17,326	2,713,753	168,398	552	1,519,707
1987 ..	48,262	18,635	3,142,146	199,459	596	1,176,560

1/ State and county employees. Includes former employees who have not withdrawn their contributions but excludes all pensioners. Decline after 1985 primarily reflects corrections in ERS records.

2/ Book value.

3/ Year ended June 30. Data on total benefits paid exclude pensioners' bonus and social security.

4/ Benefits paid total includes refunds to members electing noncontributory retirement plan. Administration expenses total reflects Social Security sick leave recovery claims.

Source: Employees' Retirement System of the State of Hawaii, _59th Annual Report, June 30, 1984_, pp. 17 and 36, and records.

Table 346.-- UNEMPLOYMENT INSURANCE: 1977 TO 1987

Calendar year	Covered employment	Insured unemployment		Average weekly total wages (dollars)	Gross benefits ($1,000)	Average weekly benefits (dollars)	Average benefit duration (weeks)
		Weekly average	Percent coverage				
1977 ...	362,413	16,438	55	209.10	55,222	88.68	16.4
1978 ...	384,214	11,287	36	223.21	45,653	91.25	16.2
1979 ...	400,311	10,381	42	238.91	39,864	93.07	13.5
1980 ...	413,095	11,291	56	259.63	49,222	102.91	13.7
1981 ...	417,018	12,224	51	276.79	66,194	113.59	14.2
1982 ...	409,511	13,657	44	295.25	77,788	124.34	14.8
1983 ...	413,289	13,452	45	310.31	70,392	123.22	15.8
1984 ...	422,950	11,567	43	321.58	70,914	135.72	14.8
1985 ...	434,637	10,091	37	332.90	62,123	134.03	14.6
1986 ...	447,667	8,901	37	347.06	56,391	140.16	14.3
1987 ...	(NA)	7,329	37	(NA)	49,900	149.50	13.4

NA Not available.

Source: Hawaii State Department of Labor and Industrial Relations, *Unemployment Insurance Fact Book, 1970 to the Present, Hawaii* (March 1988), pp. 6, 8, 11, 21, and 29, and records.

Table 347.-- CHILD ADOPTIONS: 1982 TO 1987

Type of adoption	1982	1983	1984	1985	1986	1987
Total	603	582	548	550	544	581
By relatives	388	384	362	382	339	414
By nonrelatives	215	198	186	168	205	167
Placed by social agencies ...	127	149	145	121	160	134

Source: Hawaii State Department of Human Services, tabulations from SRS-NCSS-280 Adoption Card.

Table 348.-- CHILD DAY CARE SERVICES WITH PAYROLL, BY FEDERAL INCOME TAX STATUS AND BROAD GEOGRAPHIC AREA: 1982

Geographic area	Number of establishments		Receipts or revenue ($1,000)		Paid employees, March 12	
	Subject to tax	Tax exempt	Subject to tax	Tax exempt	Subject to tax	Tax exempt
State total ..	38	85	3,162	11,346	217	1,055
Oahu	27	62	2,712	10,060	173	944
Neighbor Islands ..	11	23	450	1,286	44	111

Source: U.S. Bureau of the Census, 1982 Census of Service Industries, Hawaii, SC82-A-12 (September 1984), tables 1a, 1b, 4a, 4b, and 5b.

Table 349.-- FOUNDATIONS: 1980-1986

[For definition and coverage, see Data Book 1984, table 306, headnote]

Asset level and name of foundation	Fiscal year ended	Assets ($1,000)	Grants made ($1,000)
All non-restricted foundations 1/	Mar. 31, 1980- Dec. 31, 1986	238,767	14,386
Foundations with assets of $10,000,000 or more:			
Atherton Family Foundation	Dec. 31, 1986	42,000	1,440
Castle (Harold K. L.) Foundation	Dec. 31, 1985	40,908	982
Irwin Charity Foundation	Dec. 31, 1984	32,389	1,555
McInerny Foundation	Sept. 30, 1985	19,284	1,871
Weinberg Foundation	June 30, 1986	14,000	446
Castle (Samuel N. and Mary) Foundation	Dec. 31, 1985	12,072	906
Wilcox (G.N.) General Trust	Dec. 31, 1985	10,829	717

1/ Data limited to the 76 foundations open to grant seekers. Excludes 62 restricted foundations. Totals for assets and grants reported in Data Book 1987, table 360, were later found to have been overstated.

Source: Alu Like, A Guide to Charitable Trusts and Foundations in the State of Hawaii: 1984 Edition, (Honolulu, Alu Like, 1984), pp. 195-261, and September 15, 1988 printout of entries in the Foundation Directory-Summer 1987 Edition and National Foundations-1987 Edition.

Table 350.-- UNITED WAY REVENUES AND OUTLAYS, BY ISLANDS: 1985 TO 1987

[Dollars]

Year	Five-island total	Aloha United Way (Oahu)	Hawaii Island United Way	United Way of Kauai	Maui United Way	Friendly Isle United Fund
TOTAL REVENUES						
1985	11,868,630	9,764,131	774,077	349,709	933,932	46,781
1986 1/ .	12,806,549	10,327,358	797,468	359,809	1,264,914	57,000
1987	13,313,315	11,090,962	809,965	354,325	1,002,563	55,500
CONTRIBUTIONS						
1985	11,517,052	9,574,380	754,473	336,281	805,137	46,781
1986 1/ .	12,257,586	9,836,646	780,422	354,452	1,229,066	57,000
1987	12,472,628	10,343,237	795,674	348,325	929,892	55,500
TOTAL OUTLAYS						
1985	11,602,876	9,586,156	785,509	359,227	825,552	46,432
1986 1/ .	12,454,369	9,984,523	823,840	331,996	1,262,010	52,000
1987	13,319,452	11,377,378	801,528	357,642	1,005,655	50,500
AGENCY ALLOCATIONS						
1985	10,306,787	8,628,763	658,529	317,250	655,813	46,432
1986 1/ .	10,920,265	8,832,259	688,282	286,440	1,061,284	52,000
1987	11,319,452	9,501,600	672,665	306,000	788,687	50,500

1/ Data for Maui United Way cover 18-month period ending June 30, 1987.

Source: Aloha United Way, Annual Report (annual); Hawaii Island United Way, Inc., and Maui United Way, Financial Statements (annual), and records; United Way of Kauai and Friendly Isle United Fund, records.

Table 351.-- QUALITY OF LIFE GENERAL INDEX RANKINGS, FOR THE HONOLULU METROPOLITAN STATISTICAL AREA: 1981 TO 1988

[For earlier studies, including those with State-level rankings, see Data Book 1984, table 309, and Data Book 1986, table 348]

Authority and year of publication	Number of areas ranked	Local rank
Boyer and Savageau, 1981 1/	277	28
Pierce, 1984 2/	277	47
Boyer and Savageau, 1985 3/	329	61
Thompson, 1986 4/	119	114
Eisenberg and Englander, 1987 5/	300	58
Eisenberg and Englander, 1988 6/	300	43

1/ Richard Boyer and David Savageau, Places Rated Almanac (Rand McNally and Co., 1981), pp. 370 and 374. Based on MSA data.

2/ Paper presented by Robert Pierce to Association of American Geographers in Washington, D.C., April 24, 1984; cited in Honolulu Advertiser, April 25, 1984, p. A-3. Based on MSA data.

3/ Richard Boyer and David Savageau, Places Rated Almanac, 2nd ed. (Rand McNally and Co., 1985), p. 424. Based on MSA data.

4/ Thomas Patrick Thompson, ed., The National Metropolitan Area Study (Florence, Alabama: The University of North Alabama, Dec. 1986), p. 336. Composite weighted rank among 119 metropolitan statistical areas with populations between 250,000 and 1,000,000.

5/ Richard Eisenberg and Debra Wishik Englander, "The Best Places to Live In America," Money, August 1987, pp. 34-44. Based on MSA data.

6/ Richard Eisenberg and Debra Wishik Englander, "The Best Places to Live In America," Money, August 1988, pp. 76-84. Based on MSA data.

Table 352.-- QUALITY OF LIFE SPECIAL INDEX RANKINGS, BY GEOGRAPHIC AREAS: 1983 TO 1988

Type of index, area ranked, authority, and year of publication	Number of areas ranked	Local rank
STRESS INDEXES 1/		
State:		
Linksky and Straus, 1986 2/	50	17
Honolulu:		
ZPG, 1985 3/	184	106
Levine, 1988 4/	286	175
ZPG, 1988 5/	192	105
RETIREMENT LOCATION INDEXES 6/		
Kauai:		
Boyer and Savageau, 1987 7/	131	83
Maui:		
Boyer and Savageau, 1983 8/	107	99
Boyer and Savageau, 1987 7/	131	100

1/ Less stressful areas are assigned lower ranks.

2/ Arnold S. Linsky and Murray A. Straus, Social Stress in the United States (Auburn House Publishing Co., 1986), pp. 38-39 and 51. Based on "State Stress Index," calculated from 1976 data.

3/ Zero Population Growth, Inc., ZPG's 1985 Urban Stress Test (1985). Based on data for large cities rather than MSAs.

4/ Robert Levine, "City Stress Index: 25 Best, 25 Worst," Psychology Today, November 1988, pp. 52-58. Based on MSA data.

5/ Zero Population Growth, Inc., Urban Stress Test (1988). Based on data for large cities rather than MSAs.

6/ Areas deemed more suitable for retired persons are assigned lower ranks.

7/ Richard Boyer and David Savageau, Retirement Places Rated, 2nd ed. (Rand McNally & Co., 1987), pp. 200-203.

8/ Richard Boyer and David Savageau, Places Rated Retirement Guide (Rand McNally and Co., 1983), p. 173.

Section 12

LABOR FORCE, EMPLOYMENT, AND EARNINGS

This section presents statistics on the size and composition of the labor force, employment by occupation, industry, class of worker, and place of work, payrolls, wage rates, hours, industrial safety, work disability, unionization, and strikes. Related series appear in Sections 3, 9, 10, and 19 through 23.

The civilian labor force averaged 514,000 in 1987; of this total, 495,000 persons were employed and 20,000 were unemployed and seeking work. The civilian jobcount rose from 399,000 in 1977 to 509,000 a decade later. (The jobcount differs from employment because the latter counts multiple jobholders--"moonlighters"--only once.) Areas with large concentrations of workers in 1980 included downtown Honolulu (46,000), Waikiki (30,000), and Pearl Harbor-Hickam (15,000). The unemployment rate averaged 3.8 percent in 1987, with individual island levels ranging from 3.5 to 14.9 percent. By occupation, one out of four civilian workers is classified as professional or managerial. Activities with especially large numbers of employees include services (126,000 in 1987), retail trade (103,000), and government (96,000). The average annual earnings of wage and salary workers under the Hawaii Employment Security Law reached $19,060 in 1987, or 5.5 percent less than the 1977 average after adjustment for inflation. Average weekly hours in 1987 were 37.6 for all civilian workers and 44.1 for those on full-time schedules, and ranged from 30.7 (for retail trade) to 42.6 (for communication and utilities). Labor union membership was estimated at 154,000 in 1987-1988. Work stoppages in 1987 involved about 100 workers, the fewest in many years.

Principal sources for the data on labor force, employment, place of work, hours, earnings, unions and strikes are the decennial reports of the U.S. Bureau of the Census, the same agency's Current Population Survey, reports by the U.S. Bureau of Labor Statistics, monthly and annual tabulations by the Hawaii State Department of Labor and Industrial Relations, and annual surveys of pay rates by the Hawaii Employers Council. Historical Statistics of Hawaii, Section 4, includes figures for earlier years. Statistics for the nation as a whole are published in Section 13 of the Statistical Abstract of the United States: 1988.

Table 353.-- LABOR FORCE STATUS, BY SEX: 1950 TO 1980

Sex and labor force status	1950 1/	1960	1970	1980
BOTH SEXES				
Persons 16 years and over	351,375	402,937	522,018	723,479
Labor force	207,952	263,450	344,269	494,223
Armed forces	22,856	47,255	49,785	58,443
Civilian labor force	185,096	216,195	294,484	435,780
Employed	167,571	207,456	285,556	415,181
Unemployed	17,525	8,739	8,928	20,599
Percent of civ. labor force	9.5	4.0	3.0	4.7
Not in labor force	143,423	139,487	177,749	229,256
MALE				
Persons 16 years and over	197,864	219,822	272,726	370,683
Labor force	157,088	186,507	222,221	290,420
Armed forces	22,572	46,626	48,860	54,032
Civilian labor force	134,516	139,881	173,361	236,388
Employed	120,972	135,481	168,940	225,331
Unemployed	13,544	4,400	4,421	11,057
Percent of civ. labor force	10.1	3.1	2.6	4.7
Not in labor force	40,776	33,315	50,505	80,263
FEMALE				
Persons 16 years and over	153,511	183,115	249,292	352,796
Labor force	50,864	76,943	122,048	203,803
Armed forces	284	629	925	4,411
Civilian labor force	50,580	76,314	121,123	199,392
Employed	46,599	71,975	116,616	189,850
Unemployed	3,981	4,339	4,507	9,542
Percent of civ. labor force	7.9	5.7	3.7	4.8
Not in labor force	102,647	106,172	127,244	148,993

1/ Data refer to persons 14 years and over.

Source: U.S. Bureau of the Census, U.S. Census of Population: 1960, General Social and Economic Chracteristics, Hawaii, PC(1)-13C (1962), tables 53 and 54, and Detailed Characteristics, Hawaii, PC(1)-13D (1962), table 115; 1970 Census of Population, General Social and Economic Characteristics, Hawaii, PC(1)-C13 (December 1971), table 53; 1980 Census of Population, General Social and Economic Characteristics, Hawaii, PC80-1-C13 (June 1983), table 61.

Table 354.-- LABOR FORCE STATUS, BY COUNTIES: 1980

Subject	The State	Counties 1/			
		Hawaii	Honolulu	Kauai	Maui
Persons 16 years and over ..	723,479	67,205	574,903	28,629	52,598
Labor force	494,223	41,214	397,889	18,998	36,040
Percent of persons 16 years and over	68.3	61.3	69.2	66.4	68.5
Civilian labor force	435,780	41,006	339,863	18,789	36,040
Employed	415,181	38,150	324,113	18,223	34,613
Unemployed	20,599	2,856	15,750	566	1,427
Percent of civilian labor force	4.7	7.0	4.6	3.0	4.0
Not in labor force	229,256	25,991	177,014	9,631	16,558
Female, 16 years and over ..	352,796	33.160	279,711	13,871	25,998
Labor force	203,803	17,013	162,998	8,077	15,680
Percent of female, 16 years and over	57.8	51.3	58.3	58.2	60.3
Civilian labor force	199,392	17,007	158,618	8,052	15,680
Employed	189,850	15,875	151,089	7,756	15,095
Unemployed	9,542	1,132	7,529	296	585
Percent of civilian labor force	4.8	6.7	4.7	3.7	3.7
Not in labor force	148,993	16,147	116,713	5,794	10,318
Female, 16 years and over ..	352,796	33,160	279,711	13,871	25,998
With own children under 6 years .	62,606	6,679	48,648	2,632	4,647
In labor force	32,215	3,244	24,828	1,467	2,676
With own children 6 to 17 years only	65,359	5,661	52,415	2,681	4,602
In labor force	45,523	3,864	36,248	1,992	3,419

1/ Kalawao, net shown separately, is included in the State totals.

Source: U.S. Bureau of the Census, 1980 Census of Population, General Social and Economic Characteristics, Hawaii, PC 80-1-C13 (June 1983), tables 67 and 176.

Table 355.-- LABOR FORCE STATUS, BY AGE AND SEX: 1980

Sex and age	Total	Armed forces	Civilian labor force: Total	Civilian labor force: Employed	Civilian labor force: Unemployed	Not in labor force
Persons 16 years and over	723,479	58,443	435,780	415,181	20,599	229,256
Male	370,683	54,032	236,388	225,331	11,057	80,263
16 to 19 years	37,481	5,598	14,441	12,658	1,783	17,442
20 to 24 years	59,293	21,970	30,569	28,079	2,490	6,754
25 to 54 years	192,705	26,207	153,456	147,844	5,612	13,042
55 to 64 years	43,030	248	30,282	29,346	936	12,500
65 years and over	38,174	9	7,640	7,404	236	30,525
Female	352,796	4,411	199,392	189,850	9,542	148,993
16 to 19 years	32,403	411	13,288	11,734	1,554	18,704
20 to 24 years	46,694	1,937	29,581	27,514	2,067	15,176
25 to 54 years	192,675	2,033	132,002	126,889	5,113	58,640
55 to 64 years	43,233	30	21,109	20,483	626	22,094
65 years and over	37,791	-	3,412	3,230	182	34,379

Age	Percent of total population in labor force: Male	Percent of total population in labor force: Female	Percent of civilian population in civilian labor force: Male	Percent of civilian population in civilian labor force: Female	Percent of civilian labor force unemployed: Male	Percent of civilian labor force unemployed: Female
Persons 16 years and over .	78.3	57.8	74.7	57.2	4.7	4.8
16 to 19 years	53.5	42.3	45.3	41.5	12.3	11.7
20 to 24 years	88.6	67.5	81.9	66.1	8.1	7.0
25 to 54 years	93.2	69.6	92.2	69.2	3.7	3.9
55 to 64 years	71.0	48.9	70.8	48.9	3.1	3.0
65 years and over	20.0	9.0	20.0	9.0	3.1	5.3

Source: U.S. Bureau of the Census, 1980 Census of Population, General Social and Economic Characteristics, Hawaii, PC80-1-C-13 (June 1983), table 67.

Table 356.-- PERCENT IN LABOR FORCE, BY SEX, BY COUNTIES: 1980

Sex	State total	Hawaii	Honolulu	Kauai	Maui
Male, 16 years and over	78.3	71.1	79.6	74.0	76.5
Female, 16 years and over	57.8	51.3	58.3	58.2	60.3
With own children under 6 years ..	51.5	48.6	51.0	55.7	57.6

Source: U.S. Bureau of the Census, 1980 Census of Population, General Social and Economic Characteristics, Hawaii, PC80-1-C13 (June 1983), table 57.

Table 357.--LABOR FORCE STATUS OF THE CIVILIAN NONINSTITUTIONAL POPULATION 16 YEARS AND OVER: ANNUAL AVERAGES, 1987

[Numbers in thousands]

Labor force status	Persons 16 years and over			16 to 19 years (both sexes)
	Both sexes	Men	Women	
Civilian noninstitutional population .	763	359	404	61
Civilian labor force	514	270	244	30
Percent of population	67.4	75.3	60.4	49.7
Employment	495	259	236	26
Percent of population	64.8	72.0	58.4	43.2
Unemployment	20	12	8	4
Rate 1/	3.8	4.3	3.3	13.1
Not in civilian labor force	249	89	160	31

1/ Percent of civilian labor force. The error ranges for these rates, at the 90-percent confidence interval, are: both sexes, 3.3-4.4; men, 3.5-5.1; women, 2.6-4.0; 16-19, 9.3-16.9.

Source: U.S. Bureau of Labor Statistics, Geographic Profile of Employment and Unemployment, 1987 (Bull. 2305, April 1988), p. 44.

Table 358.-- WORKER-NONWORKER RATIO: 1950 TO 1987

Subject	1950	1960	1970	1980	1987
Civilian population ...	479,219	578,884	714,771	907,635	1,024,000
Employed persons	167,571	207,456	285,556	415,181	495,000
Rest of population	311,648	371,428	429,215	492,454	529,000
Worker-nonworker ratio	0.54	0.56	0.67	0.84	0.94

Source: U.S. Census, 1950-1980; present report, tables 2 and 357.

Table 359.-- CIVILIAN LABOR FORCE, TOTAL AND FEMALE, BY RACE AND HISPANIC ORIGIN: 1987

[Thousands]

Race 1/	Both sexes	Female
All races	514.0	235.0
White	159.8	71.2
Asian/Pacific 2/	341.9	158.2
Japanese	160.6	76.4
Filipino	70.6	31.6
Hawaiian	57.5	25.6
Chinese	33.6	15.2
Asian/Pacific -- con.:		
Korean	10.2	5.4
Other Asian/Pac.	9.4	3.8
Black	4.1	1.8
Native American 3/	1.4	0.6
Race n.e.c.	8.0	3.3
Hispanic 4/	30.1	13.0

1/ Based on census definitions. Persons of mixed race are classified by self-identification or race of mother.

2/ Asians and Pacific Islanders include Japanese, Chinese, Filipino, Korean, Asian Indian, Vietnamese, Hawaiian, Guamanian, and Samoan residents.

3/ American Indian, Eskimo, or Aleut.

4/ Hispanics may be of any race.

Source: Hawaii State Department of Labor and Industrial Relations, Labor Force Information for Affirmative Action Programs (April 1988), table 2.

Table 360.-- EMPLOYMENT STATUS OF THE CIVILIAN LABOR FORCE: ANNUAL AVERAGES, 1970 TO 1986

Year	Civilian labor force	Civilian employment	Unemployed	
			Number	Percent
1970	321,550	305,650	15,900	4.9
1971	336,800	313,450	23,350	6.9
1972	351,000	324,050	26,950	7.7
1973	364,600	338,350	26,250	7.2
1974	375,000	345,350	29,650	7.9
1975	382,950	351,100	31,850	8.3
1976	410,000	370,000	40,000	9.8
1977	418,000	388,000	31,000	7.3
1978	420,000	388,000	32,000	7.7
1979	422,000	395,000	26,000	6.3
1980	440,000	418,000	21,000	4.9
1981	451,000	427,000	24,000	5.4
1982	461,000	430,000	31,000	6.7
1983 1/ .	472,000	442,000	30,000	6.5
1984 1/ .	472,000	445,000	27,000	5.6
1985 1/ .	479,000	452,000	27,000	5.6
1986 1/ .	492,000	468,000	24,000	4.8
1987	514,000	495,000	20,000	3.8

1/ Revised from Data Book 1987, table 366.

Source: Hawaii State Department of Labor and Industrial Relations, Labor Force Data Book (March 1978), as revised annually through April 1988.

Table 361.-- EMPLOYMENT STATUS OF THE CIVILIAN LABOR FORCE, FOR COUNTIES AND ISLANDS: ANNUAL AVERAGES, 1977 TO 1987

[Data for 1980 and later years are not directly comparable to estimates for earlier years. Island data may not add exactly to State totals in preceding table]

Year	Oahu	Hawaii County	Kauai County	Maui County: County total	Maui County: Lanai	Maui County: Maui	Maui County: Molokai
CIVILIAN LABOR FORCE							
1977	330,550	37,800	18,500	32,100	1,700	27,150	3,200
1978	330,650	37,600	18,450	33,300	1,800	27,850	3,600
1979	331,100	37,250	18,500	34,150	1,750	28,650	3,700
1980	338,350	43,550	19,550	37,550	1,300	33,900	2,350
1981	345,700	45,450	20,100	39,800	1,300	36,000	2,500
1982	350,100	47,200	20,850	42,900	1,350	38,950	2,600
1983	357,150	48,350	21,650	44,850	1,150	40,950	2,750
1984	357,100	48,650	21,300	44,950	1,150	41,250	2,550
1985 1/ ...	359,600	50,400	22,050	46,950	1,050	43,550	2,300
1986 1/ ...	368,750	51,350	23,400	48,600	1,050	45,050	2,500
1987	384,100	54,150	25,000	51,750	1,000	48,150	2,550
CIVILIAN EMPLOYMENT							
1977	306,500	34,350	17,350	29,800	1,600	25,300	2,900
1978	305,950	33,950	17,200	30,900	1,650	26,000	3,250
1979	311,050	34,350	17,500	32,100	1,650	27,100	3,300
1980	322,800	40,850	18,700	35,650	1,200	32,450	2,050
1981	328,500	42,150	18,900	37,450	1,150	34,150	2,150
1982	328,600	42,700	19,150	39,550	1,100	36,250	2,200
1983	336,550	44,050	20,000	41,450	1,050	38,150	2,200
1984	338,050	44,900	19,800	42,250	1,000	39,000	2,200
1985 1/ ...	341,150	46,150	20,550	44,150	850	41,300	2,000
1986 1/....	352,500	47,500	22,000	46,050	900	42,950	2,150
1987	370,600	51,050	23,900	49,450	850	46,350	2,250

Continued on next page.

Table 361.-- EMPLOYMENT STATUS OF THE CIVILIAN LABOR FORCE, FOR COUNTIES AND ISLANDS: ANNUAL AVERAGES, 1977 TO 1987 -- Con.

Year	Oahu	Hawaii County	Kauai County	Maui County			
				County total	Lanai	Maui	Molokai
UNEMPLOYED							
1977	24,050	3,450	1,200	2,350	150	1,900	300
1978	24,700	3,650	1,200	2,400	200	1,850	400
1979	20,050	2,900	1,000	2,050	100	1,550	400
1980	15,550	2,700	850	1,900	100	1,500	350
1981	17,150	3,350	1,150	2,350	150	1,900	300
1982	21,500	4,500	1,700	3,300	250	2,700	400
1983	20,600	4,300	1,650	3,400	100	2,800	550
1984	19,100	3,750	1,500	2,700	150	2,200	350
1985	18,450	4,250	1,500	2,800	200	2,250	300
1986	16,200	3,850	1,400	2,550	100	2,100	350
1987	13,550	3,100	1,100	2,250	150	1,800	300
PERCENT UNEMPLOYED							
1977	7.3	9.1	6.4	7.3	8.0	6.9	10.0
1978	7.5	9.8	6.5	7.3	10.4	6.6	10.5
1979	6.1	7.8	5.3	6.0	5.4	5.5	10.7
1980	4.6	6.2	4.3	5.1	8.1	4.4	14.2
1981	5.0	7.3	5.8	5.9	10.6	5.2	12.9
1982	6.1	9.5	8.2	7.7	18.0	6.9	15.2
1983	5.8	8.9	7.7	7.6	9.0	6.8	19.4
1984	5.3	7.7	7.0	6.0	11.3	5.4	13.8
1985 1/ ..	5.1	8.5	6.7	5.9	20.2	5.2	12.9
1986 1/ ..	4.4	7.5	6.0	5.3	11.8	4.7	13.2
1987	3.5	5.7	4.4	4.4	14.9	3.8	11.8

1/ Revised from Data Book 1987, table 367.

Source: Hawaii State Department of Labor and Industrial Relations, Labor Force Data Book (March 1978), tables 2-8, as revised annually through April 1988.

Table 362.-- CHARACTERISTICS OF THE INSURED UNEMPLOYED: NOVEMBER 1987

[Percent distribution. Includes all eligible claimants who filed new claims for unemployment insurance benefits during the month. Includes both intrastate and interstate agent claimants]

Characteristic	Percent	Characteristic	Percent
Total	100.0	Industry:	
		Government	0.9
Age:		Agriculture	6.1
Under 22 years	2.4	Construction	30.8
22 to 24 years	6.3	Manufacturing	7.9
25 to 34 years	30.8	Trans., commun., util.	8.3
35 to 44 years	28.4	Wholesale, retail trade	16.4
45 to 54 years	16.5	Fin., ins., real estate	4.8
55 to 64 years	11.9	Services	18.2
65 years and over	3.7	Hotel	2.7
		Others and not avail.	6.6
Sex:			
Male	65.0	Occupation:	
Female	35.0	Prof., tech., mgr.	17.1
		Clerical, sales	17.2
Race:		Services	10.8
White	35.5	Farm, fish., forest.	3.6
Black	1.9	Processing	0.8
Indian	0.1	Machine trades	2.5
Hispanic	1.1	Bench work	1.9
Hawaiian	11.6	Structural work	14.0
Chinese or Korean	4.5	Miscellaneous	7.5
Filipino	16.5	Not available	24.6
Japanese	12.8		
Other	12.8	Duration:	
Not available	0.7	1 to 4 weeks	36.1
		5 to 14 weeks	38.7
		15 weeks and over	25.2

Source: Hawaii State Department of Labor and Industrial Relations, Characteristics of the Insured Unemployed in Hawaii--1987.

Table 363.-- JOBCOUNT, BY COUNTIES: ANNUAL AVERAGES, 1970 TO 1987

[Persons holding more than one job are counted in each position. As a result, these data differ from corresponding estimates of employment, reported elsewhere in this section. Active-duty armed forces are excluded, unless also employed in civilian jobs. Also excludes persons not working because of labor disputes]

Year	State total	City and County of Honolulu	Hawaii County	Kauai County	Maui County
1970	331,580	270,310	28,410	12,540	20,320
1971	339,070	276,260	29,000	12,960	20,840
1972	349,950	285,900	29,450	13,050	21,550
1973	365,050	298,900	30,150	13,600	22,250
1974	374,650	306,350	31,000	13,600	23,650
1975	380,900	308,550	32,350	14,550	25,400
1976	387,000	312,100	33,000	15,250	26,600
1977	398,600	319,900	34,100	15,900	28,450
1978	417,500	334,400	35,400	16,650	30,950
1979	434,450	348,150	36,300	17,200	32,650
1980	448,150	357,900	38,200	18,400	33,850
1981	449,900	357,350	39,050	18,300	35,150
1982	446,050	352,150	39,050	18,300	36,600
1983	453,750	357,100	39,850	18,900	37,850
1984	461,000	362,200	41,000	18,950	38,950
1985	473,150	369,800	42,400	19,900	41,100
1986 1/ .	486,650	379,600	43,300	21,200	42,500
1987	508,850	394,850	46,050	22,750	45,100

1/ Revised from Data Book 1986, table 357.

Source: Hawaii State Department of Labor and Industrial Relations, Labor Force Data Book (March 1978), as revised annually through April 1988; Labor Force Statistics, Bull. No. 70-F and 72-F.

Table 364.-- JOBCOUNT, BY INDUSTRY: ANNUAL AVERAGES, 1978 TO 1987

Industry	1978	1979	1980	1981	1982
Nonagriculture, wage and salary	377,300	394,000	404,100	404,800	399,400
Contract construction	20,650	23,400	23,950	21,900	17,850
Manufacturing	23,700	23,900	23,350	23,000	22,400
Durable goods	4,700	4,800	4,700	4,250	3,900
Nondurable goods	19,000	19,100	18,650	18,750	18,550
Food processing	11,700	11,600	11,150	11,150	11,150
Pineapple	3,200	3,200	2,900	2,800	2,750
Sugar	4,150	3,950	3,900	3,950	3,850
Other	4,300	4,400	4,350	4,350	4,550
Textile, apparel	3,250	3,300	3,050	2,950	2,850
Printing, publishing	2,850	2,950	3,100	3,150	3,150
Other nondurables	1,200	1,250	1,350	1,500	1,400
Transp., commun., utilities ..	28,800	30,500	31,200	31,900	31,200
Transportation	19,950	21,200	21,500	21,900	21,150
Communication	6,350	6,750	7,150	7,400	7,500
Utilities	2,500	2,500	2,550	2,600	2,550
Trade	97,900	102,900	105,250	105,450	104,850
Wholesale	17,200	18,300	18,600	18,700	18,500
Retail	80,700	84,650	86,700	86,750	86,300
Finance, insur., real estate .	28,850	31,500	32,850	31,700	31,500
Services and miscellaneous ...	90,300	95,350	98,450	101,900	101,200
Hotels	22,850	24,100	24,900	24,800	26,500
Other services, misc.	67,450	71,250	73,550	77,100	74,700
Government	87,050	86,500	89,050	89,000	90,300
Federal	29,350	29,700	30,000	30,350	31,500
Air Force	2,850	2,750	2,650	2,600	2,650
Army	4,500	4,250	4,100	4,300	4,650
Navy	11,750	11,850	11,950	12,500	13,100
Other	10,250	10,800	11,250	10,900	11,100
State	43,350	43,300	45,150	45,250	45,650
Local	14,350	13,500	13,900	13,350	13,150
Agriculture, wage and salary ...	11,550	10,850	10,650	11,550	11,300
Sugar	4,900	5,000	4,950	5,200	4,700
Pineapple	2,550	2,550	2,500	2,450	2,450
Other	4,100	3,300	3,200	3,950	4,150
Nonagric., self-employed 2/	23,800	24,350	28,300	29,150	31,300
Agric., self-employed 3/	4,700	4,550	4,600	4,350	3,950
Labor disputes	150	700	500	50	100

Continued on next page.

Table 364.-- JOBCOUNT, BY INDUSTRY: ANNUAL AVERAGES, 1978 TO 1987 -- Con.

Industry	1983	1984	1985	1986 1/	1987
Nonagriculture, wage and salary	406,200	412,650	425,750	438,550	458,950
Contract construction	17,800	15,800	17,150	18,650	20,950
Manufacturing	22,350	21,900	21,900	22,050	22,100
Durable goods	3,600	3,350	3,700	3,750	3,950
Nondurable goods	18,750	18,550	18,250	18,250	18,150
Food processing	11,250	10,750	10,050	10,100	10,100
Pineapple	2,550	2,150	1,900	2,000	2,050
Sugar	3,750	3,700	3,450	3,300	3,100
Other	4,900	4,900	4,700	4,850	4,950
Textile, apparel	2,900	2,950	3,300	3,350	3,200
Printing, publishing	3,150	3,350	3,450	3,400	3,400
Other nondurables	1,450	1,450	1,400	1,400	1,450
Transp., commun., utilities ..	31,100	31,950	33,200	34,200	36,650
Transportation	21,100	22,100	23,400	24,550	26,750
Communication	7,550	7,500	7,350	7,100	7,250
Utilities	2,450	2,400	2,450	2,550	2,650
Trade	106,850	111,400	115,650	117,950	123,359
Wholesale	18,400	18,900	19,550	19,550	20,400
Retail	88,450	92,450	96,100	98,400	102,950
Finance, insur., real estate .	31,900	31,850	31,950	33,150	33,950
Services and miscellaneous ...	104,950	107,950	112,650	118,750	126,350
Hotels	27,000	28,250	29,000	29,250	31,000
Other services, misc.	77,900	79,700	83,650	89,500	95,350
Government	91,300	91,850	93,300	93,850	95,600
Federal	32,100	32,100	32,400	32,100	32,350
Air Force	2,650	2,650	2,650	2,650	2,550
Army	4,850	5,000	5,400	5,600	5,600
Navy	13,350	12,950	12,700	12,150	11,900
Other	11,250	11,550	11,600	11,750	12,300
State	45,900	46,550	47,400	48,600	49,900
Local	13,300	13,200	13,500	13,150	13,400
Agriculture, wage and salary ...	11,200	10,800	10,400	10,150	10,550
Sugar	4,500	4,300	4,100	4,000	3,800
Pineapple	2,300	2,100	1,950	2,050	1,900
Other	4,400	4,400	4,350	4,100	4,800
Nonagric., self-employed 2/	32,300	33,450	33,400	34,750	35,650
Agric., self-employed 3/	3,900	3,650	3,500	3,200	3,700
Labor disputes	150	450	100	200	50

Footnotes and source follow next table.

Table 365.-- JOBCOUNT BY INDUSTRY, BY COUNTIES: ANNUAL AVERAGE, 1987

Industry	State total	City and County of Honolulu	Hawaii County	Kauai County	Maui County
Nonagriculture, wage and salary	458,950	366,150	35,100	19,250	38,400
Contract construction	20,950	16,500	1,900	750	1,750
Manufacturing	22,100	16,400	2,550	1,150	2,050
Durable goods	3,950	3,550	100	50	250
Nondurable goods	18,150	12,800	2,450	1,100	1,850
Food processing	10,100	5,550	2,000	950	1,550
Textile, apparel	3,200	3,100	(NS)	(NS)	(NS)
Printing, publishing	3,400	2,900	(NS)	(NS)	(NS)
Other nondurables	1,450	1,250	(NS)	(NS)	(NS)
Transp., commun., utilities .	36,650	30,100	2,050	2,050	2,450
Transportation	26,750	22,400	(NS)	(NS)	(NS)
Communication	7,250	5,800	(NS)	(NS)	(NS)
Utilities	2,650	1,850	(NS)	(NS)	(NS)
Trade	123,350	96,650	9,900	5,450	11,350
Wholesale	20,400	17,550	1,550	400	900
Retail	102,950	79,100	8,350	5,050	10,450
Finance, insur., real estate	33,950	28,450	1,800	1,150	2,550
Services and miscellaneous ..	126,350	97,600	9,600	5,850	13,300
Hotels	31,000	16,850	4,050	3,200	6,900
Other services, misc.	95,350	80,750	5,500	2,650	6,400
Government	95,600	80,450	7,350	2,900	4,950
Federal	32,350	31,050	700	250	350
Air Force	2,550	2,450	(NS)	(NS)	(NS)
Army	5,600	5,500	(NS)	(NS)	(NS)
Navy	11,900	11,800	(NS)	(NS)	(NS)
Other	12,300	11,300	(NS)	(NS)	(NS)
State	49,900	39,950	4,850	1,800	3,300
Local	13,400	9,400	1,850	850	1,300
Agriculture, wage and salary ..	10,550	2,750	3,700	1,300	2,750
Sugar	3,800	500	1,200	1,000	1,100
Pineapple	1,900	750	-	-	1,150
Other	4,800	1,500	2,500	300	550
Nonagric., self-employed 2/ ...	35,650	25,300	4,800	2,000	3,550
Agric., self-employed 3/	3,700	650	2,450	200	400
Labor disputes	50	50	-	-	-

Z Fewer than 50.
NS Not shown separately.
1/ Revised from Data Book 1987, tables 371 and 372.
2/ Includes unpaid family workers and domestics.
3/ Includes unpaid family workers.

Source: Hawaii State Department of Labor and Industrial Relations, Labor Force Data Book (March 1978), as revised annually through April 1988.

Table 366.-- LABOR FORCE AND JOB ESTIMATES AND PROJECTIONS: 1985 TO 2010

[Thousands. Annual averages. Series M-K projections, developed by DBED]

Subject	Estimates: 1985	Projections				
		1990	1995	2000	2005	2010
Civilian labor force 1/ (1,000)	479.0	543.8	599.1	646.5	683.4	721.7
Persons employed 1/	452.0	516.7	568.6	614.0	649.5	686.3
Total jobs (1,000)	541.5	611.0	665.5	713.1	750.4	789.1
Armed forces	68.4	68.4	68.4	68.4	68.4	68.4
Civilian jobs 1/	473.1	542.6	597.0	644.7	682.0	720.6
Self-employed	36.9	42.3	46.6	50.3	53.2	56.2
Wage and salary jobs by sector .	436.2	500.2	550.5	594.4	628.8	664.4
Agriculture	10.4	10.9	11.3	11.7	12.0	12.4
Food processing	10.0	10.0	9.9	9.7	9.4	9.1
Miscellaneous manufacturing ..	11.9	12.7	13.3	13.9	14.5	15.0
Construction	17.2	21.2	23.3	25.0	26.1	27.1
Transportation, communication, and utilities	33.2	37.3	40.2	42.5	43.9	45.3
Trade (exc. eating & drinking)	75.6	88.4	97.7	106.2	113.0	120.0
Eating and drinking places ...	40.1	48.1	52.7	57.3	61.4	65.9
Finance, insurance, and real estate	31.9	35.4	39.2	41.6	42.9	44.5
Hotels	29.0	34.5	38.1	41.3	43.7	46.3
Other services	83.6	103.6	121.1	136.5	149.4	163.3
State and local government ...	60.9	65.8	70.7	75.3	78.8	81.4
Federal government 1/	32.4	32.5	32.9	33.3	33.7	34.1

1/ Includes civilian employees of the armed forces.
Source: Hawaii State Department of Business and Economic Development, forthcoming report.

Table 367.-- EMPLOYMENT BY INDUSTRY: 1980 AND 1970

Industry	1980	1970
Employed persons 16 years and over	415,181	285,556
Agriculture, forestry, and fisheries	14,560	13,161
Mining	233	322
Construction	29,888	26,637
Manufacturing	32,914	31,188
Nondurable goods	21,234	21,173
Durable goods	11,680	10,015
Transportation, communications, and other public utilities	36,478	26,403
Wholesale and retail trade	98,542	61,044
Finance, insurance, and real estate	31,648	14,356
Business and repair services	17,832	8,978
Personal services	31,288	20,301
Entertainment and recreation services	6,862	3,756
Professional and related services	73,363	48,310
Public administration	41,573	31,100

Source: U.S. Bureau of the Census, 1980 Census of Population, General Social and Economic Characteristics, Hawaii, PC80-1-C13 (June 1983), table 61.

Table 368.-- EMPLOYMENT BY CLASS OF WORKER: 1940 TO 1980

[Persons 14 years and over through 1960; 16 years and over, 1970 and 1980]

Class of worker	1940	1950	1960	1970	1980
All employed civilians	153,796	167,571	209,370	285,556	415,181
Private wage and salary workers	113,551	111,036	144,602	200,912	300,315
Government workers	18,553	34,400	46,078	70,547	90,401
Self-employed workers	15,967	19,192	17,009	12,832	22,965
Unpaid family workers	5,725	2,943	1,681	1,265	1,500

Source: U.S. Bureau of the Census, U.S. Census of Population: 1960, General Social and Economic Characteristics, Hawaii, Final Report PC(1)-13C (February 1962), table 56; 1970 Census of Population, General Social and Economic Characteristics, Hawaii, PC(1)-C13 (December 1971), table 56; 1980 Census of Population, General Social and Economic Characteristics, Hawaii, PC80-1-C13 (June 1983), table 67.

Table 369.-- OCCUPATION, BY SEX: 1980 AND 1970

Occupation	Both sexes		Females only	
	1980	1970	1980	1970
Employed persons 16 years and over	415,181	285,556	189,850	116,616
Managerial and professional specialty occupations	97,606	58,242	42,212	22,565
Executive, administrative, and managerial occupations	48,671	25,048	16,900	6,129
Professional specialty occupations	48,935	33,194	25,312	16,436
Technical, sales, and administrative support occupations	132,651	83,698	89,078	53,113
Technicians and related support occupation	11,982	7,442	4,501	2,027
Sales occupations	47,475	28,227	27,465	15,571
Administrative support occupations, including clerical	73,194	48,029	57,112	35,515
Service occupations	74,149	44,024	41,691	26,766
Private household occupations	1,547	2,131	1,376	2,024
Protective service occupations	7,578	4,304	855	143
Service occupations, except protective and household	65,024	37,589	39,460	24,599
Farming, forestry, and fishing occupations	14,154	12,572	2,785	2,118
Precision production, craft, and repair occupations	48,198	43,484	3,941	2,731
Operators, fabricators, and laborers	48,423	43,536	10,143	9,323
Machine operators, assemblers, and inspectors	14,000	13,589	5,730	5,743
Transportation and material moving occupations	16,430	13,767	1,132	472
Handlers, equipment cleaners, helpers, and laborers	17,993	16,180	3,281	3,108

Source: U.S. Bureau of the Census, 1980 Census of Population, General Social and Economic Characteristics, Hawaii, PC80-1-C-13 (June 1983), table 61.

Table 370.-- CLASS OF WORKER AND INDUSTRY, BY COUNTIES: 1980

Subject	The State	Counties 1/			
		Hawaii	Honolulu	Kauai	Maui
CLASS OF WORKER					
Employed persons 16 years and over	415,181	38,150	324,113	18,223	34,613
Private wage and salary workers .	300,315	27,226	231,719	13,885	27,461
Federal Government workers	32,244	909	30,207	508	617
State Government workers	43,814	4,945	34,268	1,715	2,838
Local Government workers	14,343	1,481	10,583	1,002	1,277
Self-employed workers	22,965	3,310	16,312	1,035	2,301
Unpaid family workers	1,500	279	1,024	78	119
INDUSTRY					
Employed persons 16 years and over	415,181	38,150	324,113	18,223	34,613
Agriculture, forestry, fisheries, and mining	14,793	4,272	5,662	1,762	3,096
Construction	29,888	3,477	21,423	1,621	3,367
Manufacturing	32,914	3,177	24,982	1,548	3,199
Nondurable goods	21,234	2,539	14,713	1,354	2,625
Durable goods	11,680	638	10,269	194	574
Transportation	25,392	1,524	21,174	1,015	1,677
Communications and other public utilities	11,086	812	8,771	668	835
Wholesale trade	16,089	1,477	13,286	462	857
Retail trade	82,453	6,683	66,358	3,089	6,319
Finance, insurance, and real estate	31,648	2,174	26,145	1,074	2,255
Business and repair services	17,832	1,251	14,726	527	1,328
Personal, entertainment, and recreation services	38,150	4,154	26,252	2,317	5,420
Professional and related services	73,363	6,378	59,927	2,713	4,339
Health services	22,390	1,700	18,429	873	1,384
Educational services	31,989	3,090	26,113	1,099	1,687
Other professional and related services	18,984	1,588	15,385	741	1,268
Public administration	41,573	2,771	35,407	1,427	1,921

1/ Kalawao, not shown separately, is included in the State totals.

Source: U.S. Bureau of the Census, 1980 Census of Population, General Social and Economic Characteristics, Hawaii, PC80-1-C13 (June 1983), tables 67, 69, 176, and 178.

Table 371.-- OCCUPATION, BY COUNTIES: 1980

Occupation	The State	Counties 1/			
		Hawaii	Honolulu	Kauai	Maui
Employed persons 16 years and over	415,181	38,150	324,113	18,223	34,613
Managerial and professional specialty occupations	97,606	7,648	79,934	3,499	6,510
Executive, administrative, and managerial occupations	48,671	3,518	39,971	1,545	3,630
Professional specialty occupations	48,935	4,130	39,963	1,954	2,880
Technical, sales, and administrative support occupations	132,651	9,956	109,521	4,554	8,605
Technicians and related support occupations	11,982	864	9,915	614	589
Sales occupations	47,475	3,996	38,367	1,683	3,428
Administrative support occupations, including clerical	73,194	5,096	61,239	2,257	4,588
Service occupations	74,149	6,283	56,939	3,742	7,168
Private household occupations	1,547	134	1,116	135	162
Protective service occupations	7,578	609	6,010	388	569
Service occupations, except protective and household	65,024	5,540	49,813	3,219	6,437
Farming, forestry, and fishing occupations	14,154	3,927	5,838	1,509	2,872
Precision production, craft, and repair occupations	48,198	4,848	36,546	2,345	4,439
Operators, fabricators, and laborers	48,423	5,488	35,335	2,574	5,019
Machine operators, assemblers, and inspectors	14,000	1,308	10,887	518	1,282
Transportation and material moving occupations	16,430	2,123	11,274	1,054	1,979
Handlers, equipment cleaners, helpers, and laborers	17,993	2,057	13,174	1,002	1,758

1/ Kalawao, not shown separately, is included in the State totals.

Source: U.S. Bureau of the Census, 1980 Census of Population, General Social and Economic Characteristics, Hawaii, PC80-1-C13 (June 1983), tables 68 and 177.

Table 372.-- OCCUPATION OF EMPLOYED CIVILIANS, BY SEX: ANNUAL AVERAGES, 1987

Occupation	Both sexes	Men	Women
All occupations (number in thousands)	495	259	236
Percent	100.0	100.0	100.0
Managerial and professional specialty:			
Executive, administrative, and managerial	11.6	13.4	9.6
Professional specialty	13.5	12.1	15.0
Technical, sales, and administrative support:			
Technicians and related support	3.2	2.9	3.4
Sales	11.8	10.5	13.3
Administrative support, including clerical	17.4	6.9	29.0
Service occupations	19.9	17.1	23.0
Precision production, craft, and repair	9.6	17.2	1.2
Operators, fabricators, and laborers:			
Machine operators, assemblers, and inspectors ..	2.5	2.8	2.1
Transportation and material moving	3.7	6.5	0.6
Handlers, equipment cleaners, helpers, and laborers	3.8	6.2	1.1
Farming, forestry, and fishing	3.1	4.4	1.7

Source: U.S. Bureau of Labor Statistics, Geographic Profile of Employment and Unemployment, 1987 (Bull. 2305, April 1988), pp. 64-65.

Table 373.-- PLACE OF RESIDENCE AND PLACE OF WORK OF EMPLOYED PERSONS 16 YEARS AND OVER FOR THE CITY AND COUNTY OF HONOLULU, BY AREAS: 1980

[Residence and labor force status as of April 1; place of work as of preceding week. Includes armed forces. For census tract data, see Data Book 1987, pp. 359-361]

Area	Census tract equivalent	Workers by place of--	
		Residence	Work 1/
County total	1.02-114	369,523	356,692
Honolulu CDP	1.02-72, 114	183,677	246,969
Waikiki	18.01-20.02	9,094	30,011
Ala Moana	37	1,326	18,578
Kakaako	38, 39	407	26,696
Central Business District ...	40, 42, 51, 52	3,193	33,478
Iwilei-Kalihi Kai	57-60	6,442	21,571
Airport	68.03-72	5,061	33,714
Other areas	-	158,154	82,921
Rest of Oahu	73-113	185,846	109,723
Ewa	73-89.03	93,223	42,044
Wahiawa	90-95.05	20,475	20,940
Waianae	96.01-98	9,611	4,327
Waialua	99.01-100	4,405	2,031
Koolauloa	101-102.02	5,711	2,214
Koolaupoko	103.02-113	52,409	19,337
Unknown	-	-	18,830

1/ Excludes residents who worked away from the City and County of Honolulu and nonresidents who worked within the area.

Source: U.S. Bureau of the Census, 1980 Census of Population and Housing, Census Tracts, Honolulu SMSA, PHC80-2-183 (1983), table P-9, and Urban Transportation Planning Package, printouts (March 1985).

Table 374.-- EMPLOYMENT AND PAYROLLS COVERED BY THE HAWAII EMPLOYMENT SECURITY LAW AND UNEMPLOYMENT COMPENSATION FOR FEDERAL EMPLOYEES: 1977 TO 1987

Year	Number of employers, December 1/	Average employment	Wages and salaries	
			Total ($1,000)	Per worker (dollars)
INCLUDING GOVERNMENT				
1977	17,831	366,555	3,996,746	10,903
1978	18,847	383,451	4,459,594	11,630
1979	19,639	400,963	4,983,844	12,429
1980	19,988	412,281	5,585,489	13,548
1981	20,190	414,830	6,002,943	14,471
1982	20,259	408,791	6,281,953	15,367
1983	20,937	413,767	6,668,001	16,115
1984	21,288	421,821	7,050,512	16,714
1985	21,945	434,400	7,530,505	17,335
1986	24,510	446,756	8,072,318	18,069
1987	24,686	468,027	8,920,628	19,060
EXCLUDING GOVERNMENT				
1982	20,253	320,885	4,563,866	14,223
1983	20,931	325,650	4,848,497	14,889
1984	21,282	332,227	5,150,338	15,502
1985	21,939	343,400	5,518,268	16,070
1986	24,498	355,192	5,997,767	16,886
1987	24,680	373,955	6,738,448	18,019
PRIVATE NON-AGRICULTURAL				
1982	19,876	309,531	4,412,058	14,254
1983	20,515	314,142	4,679,895	14,897
1984	20,856	320,902	4,973,005	15,497
1985	21,510	332,092	5,344,772	16,094
1986	23,992	343,555	5,817,270	16,933
1987	24,145	362,271	6,543,781	18,063

1/ Beginning in 1986, includes employers reporting 1 or more employees at any time during the year, even if they reported no employees for December.

Source: Hawaii State Department of Labor and Industrial Relations, Employment and Payrolls in Hawaii (annual) and records.

Table 375.-- EMPLOYMENT AND PAYROLLS COVERED BY THE HAWAII EMPLOYMENT SECURITY LAW AND UNEMPLOYMENT COMPENSATION FOR FEDERAL EMPLOYEES, BY COUNTIES: 1987

County or island	Number of employers, Dec.	Average employment	Total wages ($1,000)	Average annual wage (dollars)
INCLUDING GOVERNMENT				
State total	24,686	468,027	8,920,628	19,060
City and Co. of Honolulu .	18,318	368,060	7,246,173	19,687
Hawaii County	2,650	37,843	639,353	16,895
Kauai County	1,199	20,446	331,939	16,235
Maui County	2,525	41,678	703,163	16,871
EXCLUDING GOVERNMENT				
State total	24,680	373,955	6,738,448	18,019
City and Co. of Honolulu .	18,315	289,184	5,398,093	18,667
Hawaii County	2,647	30,507	479,347	15,713
Kauai County	1,196	17,544	266,548	15,193
Maui County	2,522	36,720	594,460	16,189

Source: Hawaii State Department of Labor and Industrial Relations, _1987 Employment and Payrolls in Hawaii_ (September 1988).

Table 376.-- EMPLOYMENT AND PAYROLLS COVERED BY THE HAWAII EMPLOYMENT SECURITY LAW AND UNEMPLOYMENT COMPENSATION FOR FEDERAL EMPLOYEES, BY INDUSTRY: 1987

Industry	Number of employers, Dec.	Average employment	Total wages ($1,000)	Average annual wage (dollars)
All industries	24,686	468,027	8,920,628	19,060
Government	6	94,072	2,182,181	23,197
Federal	1	33,678	930,019	27,615
State	1	46,979	946,844	20,155
County	4	13,416	305,318	22,758
Private	24,680	373,955	6,738,448	18,019
Agriculture, forestry, fisheries	535	11,684	194,666	16,661
Sugar	14	3,873	74,150	19,145
Pineapple	5	2,020	38,506	19,062
Other	516	5,791	82,010	14,162
Mining and contract construction	2,174	21,300	636,516	29,883
Manufacturing	939	21,423	430,252	20,084
Sugar mills	12	2,700	58,214	21,561
Pineapple canning	2	2,007	36,881	18,376
Other food processing	213	4,799	86,391	18,002
Other manufacturing	712	11,917	248,766	20,875
Transportation	1,048	26,918	579,798	21,539
Communications	103	7,271	227,382	31,272
Utilities	41	2,642	101,038	38,243
Wholesale trade	2,124	20,462	443,323	21,666
Retail trade	5,459	103,376	1,203,578	11,643
Eating and drinking places	1,870	43,747	385,482	8,812
Other retail trade	3,589	59,629	818,096	13,720
Finance, insurance, real estate	3,203	34,051	726,818	21,345
Services	8,955	124,506	2,188,725	17,579
Hotels, rooming houses, etc.	195	30,700	472,253	15,383
Medical and other health services	1,934	24,378	600,418	24,630
Other services	6,826	69,428	1,116,054	16,075
Nonclassifiable establishments	99	323	6,350	19,659

Source: Hawaii State Department of Labor and Industrial Relations, *1987 Employment and Payrolls in Hawaii* (September 1988), pp. 5-6.

Table 377.-- AVERAGE ANNUAL WAGE FOR EMPLOYEES COVERED BY THE HAWAII EMPLOYMENT SECURITY LAW AND UNEMPLOYMENT COMPENSATION FOR FEDERAL EMPLOYEES, IN CURRENT AND CONSTANT DOLLARS, BY CLASS OF WORKER: 1977 AND 1987

Class of worker	1977: current dollars	1987		Percent change, 1977-1987	
		Current dollars	1977 dollars 1/	Current dollars	1977 dollars 1/
All classes ..	10,903	19,060	10,303	74.8	-5.5
Federal	16,834	27,615	14,927	64.0	-11.3
State 2/	12,133	20,155	10,895	66.1	-10.2
County	12,317	22,758	12,302	84.8	-0.1
Private	10,029	18,019	9,740	79.7	-2.9

1/ Deflated by the all-items consumer price index (CPI-U) for Honolulu. The all-items index increased 85.0 percent during this period.

2/ Average for 1977 is understated because of erroneous inclusion of uncovered student workers, omitted in 1987 data.

Source: Hawaii State Department of Labor and Industrial Relations, Employment and Payrolls in Hawaii (annual).

Table 378.-- NONGOVERNMENTAL REPORTING UNITS AND EMPLOYMENT, BY SIZE OF FIRM: DECEMBER 1987

Subject	All units	Employment-size class					
		1 to 4	5 to 9	10 to 19	20 to 49	50 to 99	100 or more
Reporting units ..	24,680	13,868	4,581	2,980	1,953	691	607
Employment	387,058	23,516	30,190	40,031	58,751	47,880	186,690

Source: Hawaii State Department of Labor and Industrial Relations, 1987 Employment and Payrolls in Hawaii (September 1988), p. 19.

Table 379.-- ANNUAL WAGES PER EMPLOYEE, TOTAL AND PRIVATE: 1977 TO 1987

Year	Annual wages per employee (dollars)		Hawaii as percent of U.S.		Rank 1/	
	Total	Private only	Total	Private only	Total	Private only
1977	10,873	10,029	95.1	89.1	26	33
1978	11,607	10,809	95.8	89.7	29	33
1979	12,335	11,700	94.1	89.4	27	34
1980	13,491	12,695	94.2	88.6	27	37
1981	14,411	13,567	92.2	86.9	32	41
1982	15,353	14,202	92.0	85.5	31	42
1983	16,108	14,898	92.1	85.8	30	40
1984	16,701	15,456	91.0	85.0	31	41
1985	17,329	16,064	90.3	84.7	31	40
1986	18,101	16,907	90.7	85.6	31	38
1987	19,091	18,024	91.5	87.4	25	35

1/ Among 50 States and D.C.

Source: U.S. Bureau of Labor Statistics, Employment and Wages, Annual Averages (annual report) and Release USDL 88-413.

Table 380.--MINIMUM WAGE CHRONOLOGY: 1942 TO 1988

[Dollars per hour. As of July 1, unless otherwise specified]

Effective date	Oahu	Other islands	Effective date	State	Effective date	State
1942 1/ ..	0.25	0.20	1958	1.00	1975	2.40
1943	0.30	0.25	1962	1.15	1978	2.65
1945	0.40	0.40	1964 2/ ..	1.25	1979	2.90
1953	0.65	0.55	1969	1.40	1980	3.10
1955	0.75	0.65	1970	1.60	1981	3.35
1957	0.90	0.85	1974	2.00	1988 2/ ..	3.85

1/ At inception of minimum wage law, April 1, 1942.

2/ January 1.

Source: Hawaii State Department of Labor and Industrial Relations, records.

Table 381.-- HOURS AND EARNINGS IN SPECIFIED INDUSTRIES: ANNUAL AVERAGES, 1982 TO 1987

Subject	1982	1983	1984	1985	1986	1987
Average weekly earnings (dollars)						
Contract construction	519.10	587.76	607.37	627.32	642.80	679.30
Manufacturing	301.68	317.68	318.14	323.51	344.65	366.42
Food and kindred products ..	281.86	291.65	292.98	303.32	321.40	341.01
Communication and utilities ..	486.41	486.22	512.09	542.15	582.15	608.75
Trade 1/	214.14	225.12	225.72	228.72	231.62	235.95
Wholesale trade	290.67	302.13	309.75	311.04	326.10	328.90
Retail trade 1/	189.95	199.69	198.13	200.95	200.26	206.30
Banking & credit agencies	222.49	237.73	237.78	267.80	291.78	297.11
Hotels	208.98	222.95	234.57	243.42	259.38	265.22
Average weekly hours						
Contract construction	35.8	37.2	36.9	36.6	36.9	38.4
Manufacturing	37.9	38.6	38.1	37.4	38.9	39.4
Food and kindred products ..	38.4	39.2	38.0	36.9	39.1	40.5
Communication and utilities ..	43.9	41.7	41.0	41.8	42.4	42.6
Trade 1/	33.2	33.4	33.0	33.1	32.9	32.5
Wholesale trade	37.7	38.1	38.1	38.4	38.5	38.2
Retail trade 1/	31.8	31.9	31.3	31.3	31.0	30.7
Banking & credit agencies	...	...	38.6	38.7	38.8	37.8
Hotels	32.5	32.5	33.8	33.3	34.4	33.7
Average hourly earnings (dollars)						
Contract construction	14.50	15.80	16.46	17.14	17.42	17.69
Manufacturing	7.96	r 8.23	8.35	8.65	8.86	9.30
Food and kindred products ..	7.34	7.44	7.71	8.22	8.22	8.42
Communication and utilities ..	11.08	11.66	12.49	12.97	13.73	14.29
Trade 1/	6.45	6.74	6.84	6.91	7.04	7.26
Wholesale trade	7.71	7.93	8.13	8.10	8.47	8.61
Retail trade 1/	5.97	6.26	6.33	6.42	6.46	6.72
Banking & credit agencies	...	...	6.16	6.92	7.52	7.86
Hotels	6.43	6.86	6.94	7.31	7.54	7.87

1/ Excludes eating and drinking establishments.

Source: Hawaii State Department of Labor and Industrial Relations, Labor Force Data Book (March 1978), as revised annually through April 1988.

Table 382.-- AVERAGE PAY RATES FOR SELECTED JOB CLASSIFICATIONS IN PRIVATE INDUSTRY: 1983 TO 1988

Job classification	1983	1984	1985	1986	1987	1988
MONTHLY RATES						
Junior typist	975	1,013	1,036	1,084	1,103	1,224
Clerk-stenographer	1,250	1,296	1,384	1,485	1,583	1,581
Secretary	1,256	1,341	1,407	1,461	1,516	1,597
Data entry operator	1,072	1,134	1,139	1,194	1,218	1,254
Bookkeeper, full-charge	1,580	1,647	1,707	1,794	1,865	2,034
Engineering drafting technician	1,804	1,898	1,952	1,891	2,049	2,057
Hospital attendant	1,018	1,057	1,101	1,135	1,171	1,232
Staff nurse	1,875	1,978	2,081	2,159	2,287	2,534
HOURLY RATES						
Housekeeper	5.580	5.806	6.078	6.412	6.714	7.183
Cook, general	8.048	8.308	8.626	8.950	8.747	9.074
Waiter/waitress	3.483	3.586	3.676	3.846	3.866	4.212
Laborer (light)	6.506	6.688	6.959	7.187	7.399	7.521
Carpenter (maintenance)	9.362	9.769	10.139	10.405	10.768	11.156
Electrician (maintenance) ...	10.745	11.243	11.529	12.191	12.486	13.148
Automotive mechanic	9.697	10.152	10.191	10.753	11.154	11.531
Truck driver (1.5-5 tons) ...	8.288	8.576	8.853	8.734	9.783	10.159

Source: Hawaii Employers Council, Pay Rates in Hawaii (annual).

Table 383.-- AVERAGE PAY RATES FOR SELECTED JOB CLASSIFICATIONS IN PRIVATE INDUSTRY, BY COUNTIES OR ISLANDS: 1988

[In dollars]

Job classification and year	State average	Kauai	Oahu	Maui County	Hawaii County
MONTHLY RATES					
Junior typist	1,224	...	1,221	...	...
Clerk-stenographer	1,581	...	1,562	...	...
Secretary	1,597	1,521	1,596	1,702	1,482
Data entry operator	1,254	1,400	1,246	...	1,334
Bookkeeper, full-charge	2,034	...	1,988	...	...
Engineering drafting technician	2,057	...	2,069	...	2,174
Hospital attendant	1,232	1,329	1,247	1,182	1,122
Staff nurse	2,534	2,382	2,541	2,365	...
HOURLY RATES					
Housekeeper	7.183	7.222	7.175	7.270	7.116
Cook, general	9.074	10.951	8.796	10.989	9.117
Waiter/waitress	4.212	4.397	4.149	4.451	4.284
Laborer (light)	7.521	7.471	7.601	7.537	6.515
Carpenter (maintenance)	11.156	10.826	11.481	11.501	9.876
Electrician (maintenance) ..	13.148	11.793	13.864	12.192	13.196
Automotive mechanic	11.531	10.610	12.446	11.277	10.557
Truck driver (1.5-5 tons) ..	10.159	...	10.924	8.617	8.682

Source: Hawaii Employers Council, Pay Rates in Hawaii (Special Publication No. 184, September 1988).

Table 384.-- MONTHLY AND HOURLY WAGE RATES FOR SPECIFIED JOB TITLES: 1987

[In dollars. Data are shown for only a few of the more than 2,000 jobs listed in the source, primarily to suggest the type of information and occupational detail available there]

Job title	Data source	Pay period	Wage range	
			Low	High
Accountant	Private	Monthly	950	2,608
Cannery worker	Private	Hourly	3.35	4.50
Clerk, data entry	Private	Hourly	7.39	11.76
Engineer, civil IV	Local govt.	Monthly	2,076	3,291
Host/hostess	Private	Hourly	3.75	7.87
Laborer, shipyard	Private	Hourly	4.50	7.00
Nurse, licensed practical II ..	State govt.	Monthly	1,335	1,761
Professor (11 month)	State govt.	Monthly	3,320	5,315
Stenographer	Private	Monthly	1,019	1,818
Wordprocessing supervisor	Private	Monthly	900	

Source: Hawaii State Department of Labor and Industrial Relations, Selected Wage Information for Hawaii 1987 (October 1987).

Table 385.-- COMPENSATION PAID TO EXECUTIVES OF MAJOR CORPORATIONS AND LABOR UNIONS: 1987

Type of executive	Total	Less than $100,000	$100,000 to $249,999	$250,000 to $499,999	$500,000 to $999,999	$1,000,000 or more 1/
Corporate executives	34	-	6	19	7	2
Union executives ...	11	10	1	-	-	-

1/ The highest reported totals were $1,200,000 for a corporation executive and $115,534 for a union executive.

Source: Kit Smith, "For most top execs in Hawaii, it was a very rewarding year," Sunday Star-Bulletin & Advertiser, April 17, 1988, p. B-4.

Table 386.-- ANNUAL BASE SALARIES FOR SELECTED EXECUTIVE POSITIONS IN HOTELS AND RESORT CONDOMINIUMS: 1986

[$1,000]

Position	Hotels			Resort condominiums		
	Low	Median	High	Low	Median	High
General manager	20	54	100	18	34	76
Food and beverage manager .	18	34	62	...	...	...
Executive chef	20	34	54	...	...	...
Front office manager	16	22	36	12	19	30
Reservations manager	16	22	48	16	19	24
Executive housekeeper	14	22	56	16	21	45
Controller	20	33	68	...	...	...
Chief engineer	16	36	54	16	22	40

Source: Pannell Kerr Forster, 1986 Hawaii Hotel and Resort Condominium Executive Compensation Survey Report (January 1987).

Table 387.-- WEEKLY HOURS OF WORK, FOR CIVILIAN WORKERS: ANNUAL AVERAGES; 1987

Hours of work	Civilian workers (1,000)	Age, sex, or race	Average hours
Total at work	468	Total at work	37.6
		Full-time schedules 1/ .	44.1
1 to 14 hours	22		
15 to 29 hours	63	Men	39.9
30 to 34 hours	65	Women	35.1
35 to 39 hours	28		
40 hours	187	Both sexes, 15 to 19 years	24.4
41 to 48 hours	36		
49 hours and over	67	White	37.9

1/ Refers to persons who worked 35 hours or more during the survey week.
Source: U.S. Bureau of Labor Statistics, Geographic Profile of Employment and Unemployment, 1987 (Bulletin 2305, April 1988), pp. 77-80.

Table 388.-- INTERSTATE MOVEMENT OF JOB-SEEKERS: 1982 TO 1987

Type of job-seeker	1982	1983	1984	1985	1986	1987
Island workers on Mainland 1/ ..	5,372	4,414	4,123	4,039	3,664	3,805
Mainland workers in Hawaii 2/ ..	4,848	4,659	4,219	3,993	3,932	3,161
Ratio 3/	90	106	102	99	107	83

1/ Interstate liable initial claims, excluding UCFE and UCX. Covers Hawaii workers seeking work and filing for benefits on Mainland. Includes Federal civilian employees and ex-servicemen.

2/ Interstate agent initial claims (UI), excluding UCFE and UCX. Covers Mainland workers filing claims for unemployment insurance and registered for work with the Hawaii State Employment Service.

3/ Interstate agent initial claims per 100 interstate liable initial claims. Ratios under 100 suggest a net out-migration of workers.

Source: Hawaii State Department of Labor and Industrial Relations, Unemployment Insurance Fact Book, 1970 to the Present, Hawaii (March 1988), p. 15.

Table 389.-- WORK DISABILITY STATUS OF NONINSTITUTIONAL CIVILIANS 18 TO 64 YEARS OLD, BY SEX: 1980

[For selected characteristics of these groups, see Data Book 1987, table 394]

Work disability	Total	Male	Female
Total, 18 to 64 years	552,928	259,580	293,348
With no work disability	517,083	240,362	276,721
With a work disability	35,845	19,218	16,627
Not prevented from working	19,589	11,422	8,167
Prevented from working	16,256	7,796	8,460

Source: U.S. Bureau of the Census, 1980 Census of Population, Selected Characteristics of Persons With a Work Disability by State: 1980, PC80-S1-20 (November 1985), pp. 58-59.

Table 390.-- RECORDABLE OCCUPATIONAL INJURIES AND ILLNESSES OF NONGOVERNMENTAL WORKERS: 1986

[Data exclude agricultural employers with fewer than 11 employees]

Subject	Total	Injuries	Illnesses
Recordable cases	26,519	26,132	387
Per 100 full-time workers	9.5	9.4	0.1
Lost workday cases	14,022	13,824	198
Lost workdays	222,088	217,453	4,635
Per lost workday case	16	16	23
Nonfatal cases without lost workdays.	12,481	12,297	184
Number of recordable cases:			
Agriculture	1,465	1,450	15
Mining	14	14	-
Construction	3,390	3,362	28
Manufacturing	2,730	2,701	29
Transportation, public utilities	2,513	2,491	22
Wholesale and retail trade	7,685	7,580	105
Finance, insurance, real estate	1,192	1,178	14
Services	7,530	7,356	174
Incidence per 100 full-time workers .			
Agriculture	16.6	16.4	0.2
Mining	3.6	3.6	-
Construction	21.4	21.2	0.2
Manufacturing	14.0	13.9	0.1
Transportation, public utilities	8.7	8.6	0.1
Wholesale and retail trade	9.0	8.9	0.1
Finance, insurance, real estate	4.0	3.9	(Z)
Services	8.3	8.1	0.3

Z Less than 0.05.

Source: Hawaii State Department of Labor and Industrial Relations, 1986 Occupational Injuries and Illnesses Survey, State of Hawaii, p. 5.

Table 391.-- WORK INJURIES, DEATHS, TIME LOST, AND COMPENSATION COSTS: 1981 TO 1986

Year	Accidents	Deaths	Time lost (compensated days)	Compensation costs ($1,000)
1981 ...	44,320	36	894,058	66,950
1982 ...	40,521	47	1,057,504	90,778
1983 ...	39,013	48	1,141,746	103,338
1984 ...	38,755	35	1,307,011	122,454
1985 ...	37,940	49	1,262,513	136,837
1986 ...	39,390	47	1,067,462	127,367

Source: Hawaii State Department of Labor and Industrial Relations, Work Injury Statistics (annual).

Table 392.-- LABOR UNIONS AND EMPLOYEE ASSOCIATIONS: 1987-1988

Subject	Total	AFL-CIO affiliated	Independent
Unions and associations ...	69	47	22
Membership 1/	154,000	95,000	59,000

1/ Data exclude 9 unions and associations not reporting membership.

Source: Hawaii State Department of Labor and Industrial Relations, Labor Organizations & Affiliates, 1987-1988.

Table 393.-- UNION MEMBERSHIP: 1975 TO 1982

[Data represent annual average, dues-paying full-time equivalent membership derived from financial records. Excludes unemployed members]

Subject	1975	1980	1982
Union membership (in thousands)	117	129	126
Percent of nonagricultural employment ...	34.3	31.8	31.5

Source: Industrial Relations Data and Information Services, cited in Statistical Abstract of the United States: 1988, p. 401.

Table 394.-- COLLECTIVE BARGAINING AGREEMENTS: 1983 TO 1988

[Covers collective bargaining agreements subject to wage negotiations]

Year	Number of agreements	Workers covered		Duration over 2 years (percent)	
		Total	Per agreement	Agreements	Workers
1983	1,019	68,000	67	90.3	20.4
1984	901	26,200	29	93.7	76.7
1985	350	58,450	167	74.3	11.7
1986	138	13,550	98	60.2	44.1
1987	1,375	80,400	58	96.4	42.9
1988	433	16,290	38	88.7	52.5

Source: Helene S. Tanimoto, Duration of Collective Bargaining Agreements in Hawaii, 1988 (University of Hawaii at Manoa, Industrial Relations Center, Occasional Publication No. 161, December 1987).

Table 395.-- STATE AND COUNTY EMPLOYEES IN COLLECTIVE BARGAINING UNITS BY EMPLOYING JURISDICTION: 1985 TO 1987

[Unless otherwise specified, as of December 31]

Employing jurisdiction	1985	1986	1987
Total	42,5[illegible]5	42,907	44,275
State of Hawaii	18,820	18,952	19,470
City and County of Honolulu	7,366	7,418	1/ 7,736
County of Hawaii	1,338	1,346	1,407
County of Maui	988	1,028	1,053
County of Kauai	674	674	727
Dept. of Education	9,73	9,787	10,128
University of Hawaii	3,601	3,702	3,754

1/ As of February 29, 1988.

Source: Hawaii Labor Relations Board, HLRB Information Bulletin, No. 25, April 26, 1988, and earlier issues.

Table 396.-- WORK STOPPAGES INVOLVING 1,000 OR MORE WORKERS: 1982 TO 1987

Year	Number of stoppages begun in year	Workers involved 1/	Man-days idle during year	Percent of estimated nonagricultural working time
1982	-	-	-	0
1983	1	2,800	5,600	0.01
1984	1	1,000	70,000	0.01
1985	1	1,000	11,000	0.01
1986	-	-	-	0
1987	-	-	-	0

1/ Workers counted more than once if involved in more than one stoppage during year.

Source: U.S. Department of Labor, Bureau of Labor Statistics, records.

Table 397.-- WORK STOPPAGES: 1982 TO 1987

[Data exclude stoppages lasting less than one full shift (8 hours) and stoppages affecting fewer than 6 workers, and moreover are limited to stoppages begun or in progress during the week containing the 12th of each month]

Year	Number of stoppages 1/	Workers involved 1/	Man-days lost 2/
1982	7	911	14,480
1983	7	2,838	44,411
1984	6	2,063	123,486
1985	9	1,990	32,257
1986	6	1,266	49,533
1987	4	99	14,392

1/ Stoppages carrying over from previous year are counted in both years.

2/ Partly estimated.

Source: Hawaii State Department of Labor and Industrial Relations, Research and Statistics Office, records.

Section 13

INCOME, EXPENDITURES, AND WEALTH

This section presents statistics on two different aspects of income and expenditures, one relating to the state income and product system and the other to the distribution of income to families, households and individuals. Specifically, information is given on gross state product, income by industry, personal, family and household income, poverty, personal wealth, and family expenditures. Data on wage rates, salaries, and earnings appear in Sections 3, 9, 12, and 22; on industrial payrolls, in Sections 12, 15, and 20 through 23; on the family income of visitors, in Section 7; on retirement payments and public assistance, in Sections 10 and 11; on taxable income, in Section 9.

Gross state product in 1986 was about $18 billion. The major sources of outside income to Hawaii in 1987 were defense expenditures ($1.9 billion), pineapple production ($252 million), sugar production ($336 million), and visitor expenditures ($6.6 billion). Personal income in 1987 was $17.0 billion, compared with $7.2 billion only ten years earlier, and per capita personal income was $15,700, almost twice the 1977 level. The per capita figure for Hawaii was slightly above the national average, but not high enough to compensate for the Islands' much higher cost of living. The median annual income of families, based on data for 1987, was $39,000; for unrelated individuals, the median was $14,900. The official poverty threshold for a 4-person family in Hawaii was set in February 1988 at $13,400. The most recent family expenditure survey, taken in 1984 and 1985, reported that the largest items in the family budget on Oahu were housing (accounting for 27.9 percent of total spending), transportation (18.9 percent), and food (17.5 percent). Top wealthholders in 1982 included 20,300 persons with assets of $325,000 or more and 1,400 millionaires.

The chief sources of data shown in this section are the U.S. Bureau of Economic Analysis, U.S. Bureau of the Census, U.S. Bureau of Labor Statistics, U.S. Department of Health and Human Services, Internal Revenue Service, Hawaii Agricultural Statistics Service, Hawaii State Department of Business and Economic Development, and Hawaii Visitors Bureau. Sections 6 and 7 of Historical Statistics of Hawaii present data for earlier years. Comparable data for the country as a whole are given in Statistical Abstract of the United States: 1988, Section 14.

Table 398.-- DIRECT INCOME FROM MAJOR EXPORT INDUSTRIES: 1970 TO 1987

[In millions of dollars]

Year	Total for four major industries	Value of production		Defense expendi-tures 2/	Visitor expendi-tures 3/
		Raw sugar and molasses 1/	Fresh and processed pineapple		
1970 ...	1,561	187.8	138.6	639.4	595
1971 ...	1,758	202.9	141.4	708.8	705
1972 ...	1,914	184.7	145.4	744.2	840
1973 ...	2,226	222.2	142.4	840.9	1,020
1974 ...	2,927	676.6	127.1	897.9	1,225
1975 ...	2,846	366.1	136.7	982.8	1,360
1976 ...	3,076	257.0	144.5	1,034.2	1,640
1977 ...	3,320	226.8	161.6	1,086.6	1,845
1978 ...	3,750	285.2	162.8	1,155.5	2,146
1979 ...	4,311	345.7	206.4	1,221.8	2,537
1980 ...	5,013	594.1	226.5	1,317.4	2,875
1981 ...	5,195	327.9	217.6	1,449.3	3,200
1982 ...	5,951	351.5	206.0	1,693.4	3,700
1983 ...	6,451	410.2	219.0	1,848.2	3,974
1984 ...	7,092	393.0	249.6	1,867.2	4,582
1985 ...	7,429	340.8	222.5	1,965.4	4,900
1986 ...	7,935	361.9	238.4	1,784.9	5,550
1987 ...	9,043	335.9	251.4	1,855.7	6,600

1/ Excludes government sugar support payments.

2/ Does not include military retired pay, Hawaii National Guard expenditures, or U.S. Army Corps of Engineers contracts. Data for 1986 and 1987 are partly estimated.

3/ Direct visitor expenditures in Hawaii, exclusive of transpacific transportation and expenditures of carriers and crews.

Source: Hawaii Agricultural Statistics Service, Statistics of Hawaiian Agriculture (annual) and records; data supplied to DBED by armed forces; Hawaii Visitors Bureau, 1987 Westbound Visitors to Hawaii, table 1.

Table 399.-- GROSS STATE PRODUCT AND PER CAPITA GROSS STATE PRODUCT: 1958 TO 1988

Year	Gross state product		Per capita gross state product	
	Millions of current dollars	Millions of 1982 dollars	Current dollars	1982 dollars
1958	1,415.0	4,152.3	2,337	6,859
1959	1,572.5	4,632.4	2,528	7,447
1960	1,805.1	5,248.1	2,814	8,181
1961	1,886.5	5,250.0	2,864	7,970
1962	1,965.8	5,471.0	2,876	8,004
1963	2,101.8	5,606.2	3,081	8,217
1964	2,301.3	6,167.5	3,288	8,813
1965	2,530.4	6,714.3	3,595	9,540
1966	2,771.4	7,083.5	3,902	9,972
1967	2,990.0	7,329.4	4,138	10,144
1968	3,344.5	7,932.5	4,554	10,800
1969	3,952.3	8,905.6	5,268	11,871
1970	4,414.0	9,324.6	5,720	12,084
1971	4,773.8	9,806.5	5,955	12,233
1972	5,305.4	10,464.5	6,405	12,633
1973	6,009.3	10,982.4	7,057	12,896
1974	6,901.7	10,948.5	7,951	12,614
1975	7,411.3	11,596.6	8,363	13,086
1976	7,933.4	11,746.4	8,774	12,991
1977	8,597.4	12,103.3	9,363	13,181
1978	9,627.6	12,482.9	10,335	13,400
1979	10,906.4	12,972.1	11,441	13,608
1980	12,225.7	13,690.5	12,619	14,131
1981	13,078.3	14,022.5	13,343	14,306
1982	13,691.0	13,691.0	13,725	13,725
1983	14,811.8	14,210.0	14,541	13,950
1984	15,826.5	14,637.0	15,276	14,128
1985	16,813.8	15,046.4	15,991	14,310
1986 1/	17,995.8	15,703.1	16,902	14,749
1987 1/	19,779.5	16,516.3	18,272	15,258
1988 2/	21,280.2	17,004.3	19,346	15,458

1/ Preliminary.
2/ Forecast.
Source: Follows table 405.

Table 400.-- EXPENDITURES ON GROSS STATE PRODUCT: 1986 TO 1988

[In millions of dollars]

Item	1986 1/	1987 1/	1988 2/
Gross state product	17,995.8	19,779.5	21,280.2
Personal consumption expenditures 3/	11,365.5	12,345.0	13,310.7
Goods	8,189.8	8,897.3	9,594.8
Durables	2,353.9	2,565.8	2,774.6
Non durables	5,835.9	6,331.6	6,820.2
Services	3,175.7	3,447.7	3,715.8
Gross private domestic investment	2,079.1	2,531.1	2,989.6
Fixed investment	2,013.4	2,459.7	2,832.6
Non-residential	1,399.7	1,661.6	1,890.6
Structures	705.4	775.9	945.8
Producers' durable equipment	694.3	885.7	944.8
Residential	613.7	798.1	942.0
Change in business inventories	65.7	71.4	77.0
Government purchases of goods and services	5,981.3	6,403.6	6,887.7
State and local	2,735.2	2,974.1	3,219.1
Compensation of employees	1,501.5	1,629.8	1,756.2
Purchase from business	1,233.8	1,344.4	1,462.9
Other current expenditures and equipment	936.5	1,007.9	1,100.3
Construction	297.3	338.9	362.6
Federal	3,246.1	3,429.5	3,668.7
Defense	2,963.0	3,133.9	3,356.7
Non-defense	283.1	295.6	311.9
Net exports	-1,412.6	-1,513.0	-1,612.8
Exports	9,261.6	10,376.9	11,411.2
Commodities	1,389.8	1,445.3	1,503.2
Services and income from investments	2,349.8	2,507.5	2,713.2
Visitor and crew expenditures	5,522.0	6,424.0	7,194.9
Less: Imports	10,674.2	11,889.9	13,833.0
Commodities	7,693.0	8,567.9	9,392.3
Services and income from investments	2,661.0	2,978.6	3,272.3
Out-of-state expenditures of Hawaii residents	320.2	343.3	368.5
Discrepancy and omissions	-17.5	12.8	-206.1

1/ Preliminary.
2/ Forecast.
3/ Purchases by Hawaii residents.
Source follows table 405.

Table 401.-- EXPENDITURES ON GROSS STATE PRODUCT (1982 DOLLARS): 1986 TO 1988

Item	1986 1/	1987 1/	1988 2/
Gross state product (millions of 1982 dollars)	15,703.1	16,516.3	17,004.3
Percent change	4.4	5.2	3.0
Implicit price deflator	114.6	119.8	125.1
Percent change	2.6	4.5	4.5

1/ Preliminary.
2/ Forecast.
Source follows table 405.

Table 402.-- CHARGES AGAINST GROSS STATE PRODUCT: 1986 TO 1988

[In millions of dollars]

Item	1986 1/	1987 1/	1988 2/
Compensation of employees	11,713.4	12,804.0	13,737.0
Wage and salary disbursements	9,757.5	10,663.0	11,431.6
Supplements to wages and salaries	1,955.9	2,141.0	2,305.4
Employer contributions for social insurance	1,129.3	1,227.5	1,318.1
State and local government programs	203.5	221.7	245.4
Federal government programs	925.9	1,005.8	1,072.8
Other labor income	826.6	913.5	987.3
Proprietors' income	1,205.8	1,400.0	1,526.1
Rental income of persons and net interest	1,655.0	1,716.9	1,895.1
Corporate profits before tax	695.3	801.7	844.7
Profits tax	236.7	288.9	315.0
State and local tax	46.6	67.3	67.3
Federal tax	190.1	221.6	247.7
Profits after tax	458.6	512.8	529.7
Dividends	313.9	332.5	344.3
Undistributed profits	144.7	180.2	185.5
Net state income	15,269.5	16,722.6	18,007.3
Business transfer payments	98.3	109.5	118.7
Indirect business tax and non-tax, state and local	1,444.2	1,703.1	1,856.4
Less: Subsidies less current surplus of state and local government enterprises	-20.8	-22.2	-23.5
Indirect business tax and non-tax, Federal	80.1	83.4	87.2
Less: Subsidies less current surplus of Federal government enterprises	-88.1	-95.0	-101.7
Net state product	17,001.0	18,735.8	20,194.8
Capital consumption allowances	994.8	1,043.7	1,085.4
Gross state product	17,995.8	19,779.5	21,280.2

1/ Preliminary.
2/ Forecast.
Source follows table 405.

Table 403.-- RESIDENT PERSONAL CONSUMPTION EXPENDITURES: 1986 TO 1988

[In millions of dollars]

Item	1986 1/	1987 1/	1988 2/
Personal consumption expenditures	11,365.5	12,345.0	13,310.7
Food, alcoholic beverages and tobacco	2,614.5	2,856.9	3,077.4
Clothing, accessories and jewelry	521.8	571.2	616.2
Personal care	109.9	120.1	129.3
Housing	1,949.6	2,132.4	2,299.1
Household operation	1,213.3	1,328.7	1,433.8
Medical care	1,220.6	1,335.1	1,439.5
Personal business	1,017.0	1,038.6	1,119.8
Transportation	1,289.4	1,413.5	1,526.5
Recreation	827.1	906.2	978.3
Private education and research	132.1	134.9	145.5
Religious and welfare activities	150.0	164.1	176.8
Out-of-State expenditures of residents	320.2	343.3	368.5

1/ Preliminary.
2/ Forecast.
Source follows table 405.

Table 404.-- HAWAII'S EXPORTS AND IMPORTS OF GOODS AND SERVICES: 1986 TO 1988

[In millions of dollars]

Classification	1986 1/	1987 1/	1988 2/
Hawaii's exports of goods and services	9,261.6	10,376.9	11,411.2
Merchandise exports	1,389.8	1,445.3	1,503.2
Primary	511.8	501.0	508.0
Sugar and molasses	321.5	300.8	295.0
Pineapple	190.3	200.2	213.0
Secondary	165.1	161.1	170.1
Garments	50.0	45.0	47.2
Canned tuna	8.0	(NA)	(NA)
Flowers	27.0	30.0	31.0
Papaya	11.6	14.9	16.0
Macadamia nuts and coffee	38.3	38.6	41.0
All other agriculture	30.2	32.6	34.9
Miscellaneous	712.9	783.2	825.0
Other processed foods and feeds	25.0	26.3	28.1
Fuels and petroleum products	164.0	178.3	191.6
All other	523.9	578.7	605.3
Services and income from investments	2,349.8	2,507.5	2,713.2
Visitors and crew expenditures	5,522.0	6,424.0	7,194.9
Hawaii's imports of goods and services	10,674.2	11,889.9	13,833.0
Merchandise imports	7,693.0	8,567.9	9,392.3
Domestic	6,098.0	6,657.0	7,122.0
Domestic, waterborne	5,800.0	6,350.0	6,800.0
Domestic, airborne	298.0	307.0	322.0
Foreign, total	1,595.0	1,910.9	2,270.3
Services and income from investments	2,661.0	2,978.6	3,272.3
Out-of-State expenditures by Hawaii residents	320.2	343.3	368.5

1/ Preliminary.
2/ Forecast.
Source follows table 405.

Table 405.-- SUMMARY OF GOVERNMENT ACCOUNTS, STATE AND LOCAL, AND FEDERAL: 1986 TO 1988

[In millions of dollars]

Item	1986 1/	1987 1/	1988 2/
Total revenues, State and local	3,252.5	3,679.3	4,073.2
State and local tax and non-tax	2,715.6	3,162.8	3,536.6
Personal tax and non-tax	932.6	1,082.7	1,299.2
Corporate profits tax	46.6	67.3	67.3
Indirect business tax and non-tax	1,444.2	1,703.1	1,856.4
Contributions to social insurance programs	292.2	309.7	313.7
Federal grants-in-aid	536.9	516.5	536.6
Total expenditures, State and local	2,890.1	3,192.5	3,469.3
Purchases of goods and services	2,735.2	2,974.1	3,219.1
Transfer payments to persons	308.4	325.4	353.7
Net interest paid	(-132.7)	(-84.8)	(-80.0)
Interest paid (by government)	236.4	248.9	250.0
Less: Interest received (by government)	369.1	333.7	330.0
Subsidies less current surplus of gov. ent. 1/	-20.8	-22.2	-23.5
Surplus or deficit (-), State & local	362.4	486.8	603.9
Total revenues, Federal	5,493.4	5,748.0	6,164.7
Federal tax and non-tax revenues	2,414.7	2,602.9	2,811.2
Personal tax and non-tax	565.5	632.1	665.6
Corporate profits tax	190.1	221.6	247.7
Indirect business tax and non-tax	80.1	83.4	87.2
Contributions for social insurance programs	1,579.0	1,665.8	1,810.7
Transfers from Federal gov. in Washington, D.C.	3,078.7	3,145.1	3,353.5
Total expenditures, Federal	5,493.4	5,748.0	6,164.7
Purchases of goods and services	3,246.1	3,429.5	3,668.7
Transfer payments to persons	1,784.2	1,882.3	2,046.1
Grants-in-aid to State and local government	536.9	516.5	536.6
Net interest paid (to persons)	14.3	14.7	15.0
Subsidies less current surplus of gov. ent.	-88.1	-95.0	-101.7

1/ Preliminary.
2/ Forecast.
Source: Hawaii State Department of Business and Economic Development, Hawaii Gross State Product Accounts: 1958 to 1985; Preliminary Estimates: 1986 and 1987; Forecasts: 1988 (1988).

Table 406.-- INCOME PROJECTIONS: 1985 TO 2010

[Constant 1982 dollars. Series M-K projections, developed by DBED]

Year	Gross State product (billions)	Personal income (billions)	Per capita personal income (dollars)
1985	15.1	13.0	12,400
1990	18.3	15.5	13,600
1995	21.7	18.0	14,700
2000	24.7	20.1	15,600
2005	27.5	21.9	16,200
2010	30.4	24.1	16,800

Source: Hawaii State Department of Business and Economic Development, forthcoming report.

Table 407.-- PERSONAL INCOME PROJECTIONS, TOTAL AND PER CAPITA, BY COUNTIES: 1990, 2000, AND 2010

[Series M-K projections developed by DBED]

Subject	Total personal income (millions of 1982 dollars)			Per capita personal income (1982 dollars)		
	1990	2000	2010	1990	2000	2010
State total	15,509.1	20,094.0	24,122.1	13,600	15,600	16,800
Honolulu	12,355.6	15,408.1	17,785.6	14,300	16,500	17,800
Hawaii	1,327.6	1,964.9	2,811.8	10,700	12,300	13,600
Kauai	629.7	945.3	1,276.9	11,600	13,900	15,100
Maui	1,196.3	1,775.7	2,247.7	12,400	14,300	15,500

Source: Hawaii State Department of Business and Economic Development, forthcoming report.

Table 408.-- TOTAL AND PER CAPITA PERSONAL INCOME AND DISPOSABLE PERSONAL INCOME: 1960 TO 1987

[Revised from Data Book 1987, table 413]

Year	Personal income (millions of dollars)		Per capita personal income (dollars)		Per capita personal income as percent of U.S. average	
	Total	Disposable	Total	Disposable	Total	Disposable
1960 ...	1,466	1,253	2,350	2,008	104	101
1961 ...	1,584	1,349	2,464	2,097	107	103
1962 ...	1,695	1,465	2,595	2,244	107	105
1963 ...	1,806	1,566	2,692	2,334	107	106
1964 ...	1,962	1,726	2,894	2,545	109	108
1965 ...	2,153	1,903	3,085	2,726	109	108
1966 ...	2,359	2,054	3,385	2,946	111	109
1967 ...	2,565	2,232	3,624	3,152	112	111
1968 ...	2,874	2,472	3,998	3,438	114	112
1969 ...	3,277	2,747	4,411	3,698	116	114
1970 ...	3,772	3,191	4,944	4,182	122	120
1971 ...	4,060	3,478	5,129	4,394	119	118
1972 ...	4,473	3,780	5,468	4,620	117	116
1973 ...	4,967	4,204	5,901	4,993	114	112
1974 ...	5,702	4,861	6,645	5,665	118	117
1975 ...	6,159	5,374	7,038	6,141	116	116
1976 ...	6,670	5,783	7,474	6,480	112	113
1977 ...	7,210	6,213	7,873	6,784	108	108
1978 ...	8,043	6,898	8,660	7,427	106	107
1979 ...	9,031	7,711	9,506	8,116	105	106
1980 ...	10,279	8,776	10,617	9,065	107	108
1981 ...	11,051	9,418	11,275	9,608	103	104
1982 ...	11,732	10,213	11,760	10,238	102	105
1983 ...	12,875	11,100	12,641	10,898	104	105
1984 ...	13,628	11,886	13,157	11,475	100	102
1985 ...	14,576	12,593	13,867	11,980	100	101
1986 ...	15,634	13,505	14,683	12,684	101	102
1987 ...	16,972	14,571	15,679	13,461	101	102

Source: U.S. Department of Commerce, Bureau of Economic Analysis, diskettes dated August 1988.

Table 409.-- PER CAPITA PERSONAL INCOME IN CURRENT AND CONSTANT DOLLARS: 1970 AND 1987

Subject	Value	Subject	Value
Per capita personal income: 1/		Percent increase, 1970-87: 3/	
1970	4,944	Current dollars	217.1
1987	15,679	Constant dollars	12.9
In 1970 dollars 2/	5,581	Rank: 4/	
Percent of U.S. average:		1970	4
1970	122.0	1987	15
1987	101.3	Percent increase	51

1/ In dollars. U.S. values were $4,051 in 1970 and $15,481 in 1987 ($5,288 in 1970 dollars).

2/ Based on Honolulu CPI-W for 1970 (40.9) and CPI-U for 1987 (114.9).

3/ U.S. increases were 282.2 percent in current dollars and 30.5 percent in constant dollars).

4/ Among 50 States and D.C.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, diskettes dated August 1988. Constant dollar values calculated by DBED.

Table 410.-- PERSONAL INCOME: QUARTERLY, 1983 TO 1988

[In millions of dollars. Seasonally adjusted at annual rates]

Quarter	1983	1984	1985	1986	1987	1988
First	12,538	13,374	14,241	15,138	16,189	17,373
Second	12,756	13,620	14,424	15,415	16,435	(NA)
Third	12,819	13,723	14,638	15,742	16,775	(NA)
Fourth	13,388	13,796	14,917	15,991	17,265	(NA)

NA Not available.

Source: U.S. Bureau of Economic Analysis, Survey of Current Business, April 1988, pp. 72-73, and printouts.

Table 411.-- PERSONAL INCOME BY MAJOR SOURCES: 1982 TO 1987

[In millions of dollars. Revised from Data Book 1987, table 416]

Item	1982	1983	1984	1985	1986	1987
Labor and proprietors income						
By type:						
Wage and salary disbursements ..	7,646	8,114	8,584	9,183	9,781	10,669
Other labor income	641	701	752	759	842	941
Proprietors income	667	938	937	1,050	1,214	1,309
Farm	84	215	115	109	146	159
Nonfarm	582	723	822	941	1,067	1,150
By industry:						
Farm	242	367	267	260	298	321
Nonfarm	8,712	9,385	10,005	10,732	11,538	12,599
Private	5,841	6,345	6,780	7,300	8,013	8,933
Government and govt. enterprises	2,871	3,040	3,225	3,432	3,525	3,666
Federal, civilian	797	859	919	966	950	990
Federal military	1,041	1,094	1,175	1,274	1,299	1,325
State and local	1,034	1,087	1,131	1,192	1,277	1,351
Derivation of personal income						
Labor and proprietors income	8,954	9,753	10,272	10,991	11,836	12,919
Less: Personal contributions for social insurance	561	586	626	678	716	778
Net labor and proprietors income .	8,393	9,166	9,646	10,313	11,120	12,141
Plus: Dividends, interest, and rent	1,648	1,837	2,049	2,189	2,319	2,506
Plus: Transfer payments	1,691	1,872	1,933	2,074	2,195	2,326
Personal income	11,732	12,875	13,628	14,576	15,634	16,972

Source: U.S. Department of Commerce, Bureau of Economic Analysis, diskettes dated August 1988.

Table 412.-- TOTAL PERSONAL INCOME, BY COUNTIES: 1969 TO 1986

[Millions of dollars]

Year	State total	City and County of Honolulu	Other counties			
			Total	Hawaii	Kauai	Maui and Kalawao
1969	3,277.4	2,782.4	494.9	219.0	112.1	163.8
1970	3,771.8	3,194.4	577.4	262.3	121.2	193.9
1971	4,059.7	3,419.9	639.8	292.6	133.2	214.0
1972	4,473.3	3,772.3	701.1	322.6	142.6	235.8
1973	4,967.5	4,193.1	774.4	356.3	157.7	260.4
1974	5,702.4	4,630.5	1,071.9	497.9	219.3	354.8
1975	6,159.0	5,090.3	1,068.7	489.0	207.8	371.9
1976	6,669.7	5,521.6	1,148.0	513.0	220.5	414.6
1977	7,209.5	5,939.9	1,269.6	564.3	240.9	464.3
1978	8,043.1	6,618.5	1,424.6	636.0	273.2	515.3
1979	9,030.9	7,395.5	1,635.4	724.4	313.0	598.0
1980	10,279.2	8,293.1	1,986.2	901.3	374.4	710.5
1981	11,051.4	9,039.9	2,011.4	895.8	378.3	737.3
1982	11,731.7	9,570.6	2,161.1	948.9	406.6	805.7
1983	12,875.3	10,396.3	2,479.0	1,080.7	462.7	935.5
1984	13,627.9	11,063.9	2,564.0	1,117.3	471.7	975.1
1985	14,555.0	11,792.0	2,763.1	1,186.8	513.0	1,063.3
1986	15,571.5	12,561.5	3,010.0	1,288.9	560.8	1,160.3

Source: U.S. Department of Commerce, Bureau of Economic Analysis, printout dated April 1988.

Table 413.-- PER CAPITA PERSONAL INCOME, BY COUNTIES: 1969 TO 1986

[Dollars]

Year	State total	City and County of Honolulu	Other counties			
			Total	Hawaii	Kauai	Maui and Kalawao
1969	4,411	4,611	3,548	3,470	3,732	3,530
1970	4,944	5,121	4,148	4,127	4,091	4,217
1971	5,129	5,402	4,037	3,980	4,007	4,133
1972	5,468	5,674	4,573	4,614	4,476	4,580
1973	5,901	6,132	4,899	4,890	4,847	4,942
1974	6,645	6,634	6,695	6,738	6,739	6,611
1975	7,038	7,191	6,392	6,333	6,241	6,563
1976	7,474	7,702	6,544	6,374	6,341	6,890
1977	7,873	8,082	7,022	6,831	6,803	7,398
1978	8,660	8,938	7,566	7,425	7,444	7,814
1979	9,506	9,816	8,318	8,133	8,234	8,600
1980	10,617	10,854	9,727	9,682	9,499	9,916
1981	11,275	11,765	9,501	9,232	9,308	9,944
1982	11,760	12,292	9,868	9,472	9,703	10,477
1983	12,640	13,107	10,993	10,526	10,764	11,724
1984	13,154	13,805	10,934	10,438	10,691	11,688
1985	13,842	14,538	11,494	10,835	11,304	12,440
1986	14,658	15,380	12,256	11,533	12,107	13,254

Source: U.S. Department of Commerce, Bureau of Economic Analysis, printout dated April 1988.

Table 414.-- UNREPORTED OR ILLEGAL INCOME: 1981

[In millions of dollars. Data are rough estimates of income from the "underground economy," based in part on estimated national ratios of unreported to reported income. For greater detail, see source or Data Book 1984, table 284]

Source	Amount
All sources	1,160.3
Percent of reported personal income	10.7
Income hidden to avoid taxes	569.1
Income from illegal transfers	56.0
Income from production and distribution of illegal goods	445.6
Income from illegal services	58.0
Other illegal income	31.6

Source: Linda Kephart, "Business booms 'off-the-books,'" Hawaii Business, March 1984, p. 69.

Table 415.-- ESTIMATED DECILE DISTRIBUTIONS OF FAMILY INCOMES, BY COUNTIES: 1979 AND 1988

[Data refer to calendar year 1979 and fiscal year 1988]

County	1st decile		5th decile (median) 1/		9th decile	
	1979	1988	1979	1988	1979	1988
Honolulu	7,569	11,729	23,553	36,500	49,866	77,277
Hawaii	5,975	8,994	19,131	28,800	42,778	64,398
Kauai	7,089	10,694	20,881	31,500	42,150	63,585
Maui	7,216	10,866	22,578	34,000	48,653	73,266

1/ The U.S. median was $19,917 in 1979 and $32,400 in 1988.

Source: U.S. Department of Housing and Urban Development, Office of Economic Affairs, Economic and Market Analysis Division, "Estimated median family incomes for Fiscal Year 1988," memorandum dated January 15, 1988.

Table 416.-- MEDIAN INCOME OF HOUSEHOLDS, FAMILIES, UNRELATED INDIVIDUALS, AND PERSONS: 1949 TO 1987

[In dollars. Based on censuses or surveys made in March or April of following year. Data for 1980-1987 are taken from small samples (averaging 559 households annually) and thus are subject to considerable sampling variation]

Year	Households	Families	Unrelated individuals with income 1/	Persons with income 1/	
				Male	Female
1949	(NA)	3,568	1,583	2,340	1,247
1959	(NA)	6,366	1,998	3,753	1,796
1969	10,675	11,664	2,981	6,528	3,222
1975	15,991	17,770	6,180	9,489	4,082
1979	20,473	22,750	7,097	11,505	6,581
1980	21,666	24,813	8,506	13,533	6,917
1981	22,434	27,499	10,003	13,635	7,069
1982	23,582	27,840	11,068	13,582	8,133
1983	26,805	29,742	12,211	14,903	7,941
1984	28,877	32,831	12,303	16,147	8,548
1985	28,961	33,244	14,351	15,865	9,987
1986 (rev.)	29,003	34,665	14,906	18,889	9,998
1987	34,398	39,038	14,876	19,872	10,765

NA Not available.

1/ 14 years old and over through 1975, and 15 years old and over thereafter. Data for 1975 and 1980-1987 exclude persons in military group quarters.

Source: U.S. Bureau of the Census, Census of Population: 1960, General Social and Economic Characteristics, Hawaii, Final Report PC(1)-13C (1962), tables 66 and 67 (for 1949 data); 1970 Census of Population, General and Economic Characteristics, Hawaii, PC(1)-C13 (December 1971), table 47 (for 1959 data); 1980 Census of Population, General Social and Economic Characteristics, Hawaii, PC80-1-C-13 (June 1983), table 61 (for 1969 and 1979 data); "Household Money Income in 1975, by Housing Tenure and Residence, for the United States, Regions, Divisions, and States (Spring 1976 Survey of Income and Education)," Current Population Reports, Consumer Income, Series P-60, No. 108 (November 1977), p. 145; "Money Income and Poverty Status in 1975 of Families and Persons in the United States and the West Region, by Divisions and States (Spring 1976 Survey of Income and Education)," Current Population Reports, Consumer Income, Series P-60, No. 113 (July 1978), pp. 175-177; Current Population Survey (March), annual, 1981 to 1988, machine-readable file, special tabulation by Hawaii State Data Center.

Table 417.-- INCOME OF HOUSEHOLDS, FAMILIES, AND PERSONS IN 1979: 1980

[Money income received in 1979 by households, families, and persons surveyed in April 1980]

Income	The State	Oahu	Other islands
Households	294,934	230,931	64,003
Less than $5,000	24,433	17,631	6,802
$5,000 to $7,499	18,775	13,771	5,004
$7,500 to $9,999	21,209	16,663	4,546
$10,000 to $14,999	41,604	32,320	9,284
$15,000 to $19,999	37,836	28,833	9,003
$20,000 to $24,999	34,842	26,768	8,074
$25,000 to $34,999	52,585	41,728	10,857
$35,000 to $49,999	39,955	33,443	6,512
$50,000 or more	23,695	19,774	3,921
Median	$20,473	$21,077	$18,457
Mean	$24,519	$25,180	$22,132
Families	227,974	178,516	49,458
Less than $5,000	11,533	8,603	2,930
$5,000 to $7,499	12,195	8,920	3,275
$7,500 to $9,999	15,068	11,817	3,251
$10,000 to $14,999	29,796	22,815	6,981
$15,000 to $19,999	28,957	21,572	7,385
$20,000 to $24,999	28,013	21,234	6,779
$25,000 to $34,999	45,089	35,482	9,607
$35,000 to $49,999	36,236	30,450	5,786
$50,000 or more	21,087	17,623	3,464
Median	$22,750	$23,554	$20,600
Mean	$26,629	$27,318	$24,139
Unrelated individuals 15 years and over	136,692	112,303	24,389
Less than $2,000	17,492	13,797	3,695
$2,000 to $2,999	7,698	5,713	1,985
$3,000 to $4,999	16,598	12,795	3,803
$5,000 to $7,999	34,234	29,848	4,386
$8,000 to $9,999	13,112	11,007	2,105
$10,000 to $14,999	21,340	17,209	4,131
$15,000 to $24,999	18,037	14,972	3,065
$25,000 to $49,999	6,841	5,866	975
$50,000 or more	1,340	1,096	244
Median	$7,097	$7,167	$6,735
Mean	$9,947	$10,061	$9,423

Source: U.S. Bureau of the Census, 1980 Census of Population, General Social and Economic Characteristics, Hawaii, PC80-1-C13 (June 1983), table 71.

Table 418.-- INCOME OF HOUSEHOLDS AND FAMILIES: ANNUAL AVERAGES, 1982 TO 1984 AND 1985 TO 1987

[Data refer to income before taxes, as reported in March survey in following year. Based on a pooled sample of 1,730 households for 1982-1984 and 1,512 households for 1985-1987]

Income	Households		Families	
	1982-1984	1985-1987	1982-1984	1985-1987
Total	327,405	349,890	247,521	266,736
Under $5,000	20,902	17,592	9,513	5,880
$5,000 to $7,499	15,307	14,944	8,807	7,686
$7,500 to $9,999	19,302	11,323	9,843	6,735
$10,000 to $14,999	38,121	28,669	26,731	18,720
$15,000 to $19,999	32,044	37,641	20,483	24,490
$20,000 to $24,999	30,415	31,101	24,461	22,770
$25,000 to $34,999	59,227	55,125	49,274	45,204
$35,000 to $49,999	62,788	63,500	56,006	53,813
$50,000 to $74,999	38,388	62,320	32,791	56,799
$75,000 and over	10,910	27,674	9,613	24,639
Median income (dollars)	26,343	30,858	30,071	35,478

Source: U.S. Bureau of the Census for U.S. Bureau of Labor Statistics, Current Population Survey (March), annual, 1983 to 1988; machine-readable data file, special tabulation by Hawaii State Data Center.

Table 419.-- INCOME AND POVERTY STATUS IN PREVIOUS YEAR: 1970 AND 1980

Subject	1970	1980
INCOME IN PREVIOUS YEAR		
Households	204,415	294,934
Median income (current dollars)	$10,675	$20,473
Median income (1979 dollars)	$21,137	$20,473
Families	170,729	227,974
Median income (current dollars)	$11,664	$22,750
Median income (1979 dollars)	$23,095	$22,750
Unrelated individuals 15 years and over	83,093	136,692
Median income (current dollars)	$2,981	$7,097
Median income (1979 dollars)	$5,902	$7,097
Male, 15 years and over 1/	289,165	378,942
Without income	29,578	29,106
With income	259,587	349,836
Median income (current dollars)	$6,528	$11,505
Median income (1979 dollars)	$12,925	$11,505
Female, 15 years and over 1/	264,590	360,707
Without income	94,729	78,1157
With income	169,861	282,592
Median income (current dollars)	$3,222	$6,581
Median income (1979 dollars)	$6,380	$6,681
INCOME IN PREVIOUS YEAR BELOW POVERTY LEVEL 2/		
Persons	68,364	91,618
65 years and over	8,457	7,654
In families	51,530	66,843
Householder	13,063	17,700
Female householder, no husband present	5,180	7,985
Related child under 18 years	27,895	35,103
Related child under 6 years	10,129	14,725
Other relatives	10,572	14,040
Unrelated individuals	16,834	24,775
65 years and over	4,561	4,9277

1/ 14 years and over in 1970.

2/ Percent columns show percent below poverty level for specified groups. Data are based on U.S. poverty thresholds. Thresholds in Hawaii are about 15 percent higher; these statistics accordingly understate the number of persons in Hawaii below the poverty level.

Source: U.S. Bureau of the Census, 1980 Census of Population, General Social and Economic Characteristics, Hawaii, PC80-1-13C (July 1983), table 61.

Table 420.-- INCOME AND POVERTY STATUS IN 1979, BY COUNTIES AND ISLANDS: 1980

[Income and poverty status in 1979 of households, families and persons surveyed in April 1980]

County and island	Median income (dollars)		Per capita income (dollars)	Income below poverty level 1/	
	Households	Families		Percent of persons for whom poverty status is determined	Percent of families
The State ..	20,473	22,750	7,740	9.9	7.8
Counties:					
Hawaii	16,975	19,132	6,554	13.2	10.3
Maui	20,237	22,579	7,818	9.6	7.6
Kalawao	5,750	11,667	6,838	31.9	13.3
Honolulu	21,077	23,554	7,912	9.5	7.5
Kauai	19,066	20,882	7,022	8.9	6.9
Islands:					
Hawaii	16,975	19,132	6,554	13.2	10.3
Maui	20,732	24,136	8,115	8.8	7.2
Lanai	18,597	21,667	6,472	10.6	2.3
Molokai	14,530	16,440	5,206	21.6	12.8
Oahu 2/	21,077	23,554	7,912	9.5	7.5
Kauai	19,154	20,989	7,057	8.3	6.4
Niihau	4,922	4,922	1,081	81.2	84.2

1/ Based on Mainland poverty thresholds. Hawaii thresholds are approximately 15 percent higher than those in effect on the Mainland; these data accordingly understate the percent of persons and families below poverty level in Hawaii.

2/ Includes the Northwestern Hawaiian Islands.

Source: U.S. Bureau of the Census, 1980 Census of Population, General Social and Economic Characteristics, Hawaii, PC80-1-C13 (June 1983), table 57, and 1980 Census of Population and Housing, Census Tracts, Hawaii, Selected Areas, PHC80-2-13 (June 1983), table P-11. Island data for Maui, Molokai, and Kauai calculated by Hawaii State Data Center.

Table 421.-- POVERTY STATUS IN 1979 OF FAMILIES AND PERSONS: 1980

[Based on nationwide poverty thresholds. Hawaii thresholds are approximately 15 percent higher than those in effect on the Mainland; these data accordingly understate the numbers of persons and families below the poverty level in Hawaii. Data refer to the poverty status in 1979 of families and persons surveyed in April 1980]

Subject	Number
ALL INCOME LEVELS IN 1979	
Families	227,974
Unrelated individuals	107,787
Persons	927,032
INCOME IN 1979 BELOW POVERTY LEVEL	
Families	17,700
Percent below poverty level	7.8
Unrelated individuals	24,775
Percent below poverty level	23.0
Persons	91,618
Percent below poverty level	9.9
INCOME IN 1979 BELOW 125 PERCENT OF POVERTY LEVEL	
Families	26,815
Percent below poverty level	11.8
Unrelated individuals	30,725
Percent below poverty level	28.5
Persons	133,214
Percent below poverty level	14.4
INCOME IN 1979 BELOW SPECIFIED POVERTY LEVEL	
Percent of persons:	
Below 75 percent of poverty level	6.1
Below 150 percent of poverty level	19.0
Below 200 percent of poverty level	29.0

Source: U.S. Bureau of the Census, 1980 Census of Population, General Social and Economic Characteristics, Hawaii, PC80-1-C13 (June 1983), table 72.

Table 422.-- POVERTY STATUS OF FAMILIES AND UNRELATED INDIVIDUALS: 1969 TO 1987

[Based on censuses or surveys made in March or April of following year]

Year	Families			Unrelated individuals 2/		
	Total	Below poverty level 1/		Total	Below poverty level 1/	
		Number	Percent		Number	Percent
1969 ..	170,729	13,046	7.6	55,588	16,833	30.3
1975 ..	201,000	13,000	6.4	66,000	14,000	21.6
1979 ..	227,974	17,700	7.8	107,787	24,775	23.0
1985 ..	253,914	18,776	7.4	117,639	27,243	23.2
1986 ..	264,689	23,419	8.8	122,419	31,828	26.0
1987 ..	281,599	20,468	7.3	107,656	19,513	18.1

1/ Based on Mainland poverty thresholds. Hawaii thresholds are approximately 15 percent higher than those in effect on the Mainland; these data accordingly understate the number and percent of families and unrelated individuals below poverty level in Hawaii.

2/ 14 years old and over through 1975, and 15 years old and over thereafter. Data for 1975, 1985, and 1986 exclude persons in military group quarters.

Source: U.S. Bureau of the Census, 1970 Census of Population, General Social and Economic Characteristics, Hawaii, PC(1)-C13 (December 1971), table 58; "Money Income and Poverty Status in 1975 of Families and Persons in the United States and West Region, by Divisions and States (Spring 1976 Survey of Income and Education)," Current Population Reports, Consumer Income, Series P-60, No. 113 (July 1978), pp. 179-180; 1980 Census of Population, General Social and Economic Characteristics, Hawaii, PC80-1-C13 (June 1983), table 72; Current Population Survey (March), 1986 to 1988, machine-readable file, special tabulation by Hawaii State Data Center.

Table 423.-- POVERTY INCOME GUIDELINES: 1980, 1987 AND 1988

[In dollars. These family income levels are poverty thresholds established by the U.S. Department of Health and Human Services to determine eligibility for certain Federal programs for the poor. In earlier years, these guidelines were issued by the Community Services Administration]

Size of family unit	Effective April 21, 1980 1/	Effective Feb. 20, 1987 2/	Effective Feb. 12, 1988 2/
1	4,370	6,310	6,650
2	5,770	8,500	8,900
3	7,170	10,690	11,150
4	8,570	12,880	3/ 13,400
5	9,970	15,070	15,650
6	11,370	17,260	17,900
7	12,770	19,450	20,150
8	14,170	21,640	4/ 22,400

1/ Nonfarm families only; guidelines for farm families were lower.

2/ All families.

3/ Corresponding levels for four-person families elsewhere in the United States were $11,650 on the Mainland and $14,560 in Alaska.

4/ For larger families, add $2,250 for each additional member.

Source: Community Services Administration, "General Characteristics of Community Action Programs; Income Poverty Guidelines (Revised)," Federal Register, Vol. 45, No. 78 (April 21, 1980), pp. 26712-26713; U.S. Department of Health and Human Services, "Annual Update of the Poverty Income Guidelines," Federal Register, Vol. 52, No. 34 (February 20, 1987), pp. 5340-5341, and "Annual Update of the Poverty Income Guidelines," Federal Register, Vol. 53, No. 29 (February 12, 1988), pp. 4213-4214.

Table 424.-- ANNUAL INCOME AND EXPENDITURES OF URBAN CONSUMER UNITS, FOR OAHU: 1980-81, 1982-83, AND 1984-85

[Data based on 792 sample interviews in 1980-81, 928 in 1982-83, and 1,043 in 1984-85. For detailed breakdowns, see source]

Item	Annual averages (dollars)		
	1980-81	1982-83	1984-85
Total expenditures	18,584	22,247	24,818
Food at home	2,681	2,838	2,994
Food away from home	887	1,265	1,350
Alcoholic beverages	302	460	413
Housing	5,454	6,122	6,934
Shelter	3,523	3,948	4,735
Utilities, fuels, and public services	937	1,142	1,144
Household operations	369	280	311
Housefurnishings and equipment	626	751	745
Apparel	773	1,080	1,158
Transportation	3,729	4,051	4,681
Health care	731	770	987
Entertainment	804	1,101	1,170
Personal care	153	232	243
Reading	119	159	176
Education	265	380	454
Tobacco and smoking supplies	143	177	214
Miscellaneous	258	482	480
Cash contributions	504	923	1,191
Personal insurance and pensions	1,779	2,204	2,391
Money income before taxes	22,926	27,937	30,751
Personal taxes	2,915	3,595	2,965
Other money receipts	123	227	579
Mortgage principal paid on owned property	440	635	490
Gifts of goods and services	498	690	700

Source: U.S. Bureau of Labor Statistics, Consumer Expenditure Survey: Interview, 1984, Bulletin 2267 (August 1986), pp. 67-70 and 83-86, and 1984-85 printouts.

Table 425.-- TOP WEALTHHOLDERS: 1962 TO 1982

[Top wealthholders are defined as persons with a gross estate in excess of specified amounts, rising from $60,000 in 1962 to $325,000 in 1982. All figures are estimates based on estate tax return samples]

Group and year	Number of top wealth-holders	Millions of dollars: Total assets	Millions of dollars: Debts and mort-gages	Millions of dollars: Net worth
Gross estate over $60,000:				
1962	11,323	1,908	231	1,677
1969	36,470	6,327	1,090	5,236
1972	53,700	7,866	1,369	6,497
Gross estate over $120,000:				
1976	39,000	7,436	1,546	5,890
Gross estate over $325,000:				
1982 1/	20,300	14,767	3,523	11,244
Gross estate over $500,000:				
1982 1/	8,700	10,864	2,919	7,946

1/ Revised from Data Book 1987, table 429.

Source: U.S. Internal Revenue Service, Statistics of Income - 1962, Personal Wealth (1967), pp. 55-56; Statistics of Income - 1969, Personal Wealth (1973), pp. 57-58; Statistics of Income - 1972, Personal Wealth Estimated from Estate Tax Returns (1976), table 33; and Statistics of Income Bulletin, Summer 1983, pp. 1-26, and Spring 1988, pp. 31-46.

Table 426.-- CHARACTERISTICS OF TOP WEALTHHOLDERS: 1982

[Top wealthholders are defined as persons with gross assets of $325,000 or more. All figures in this table are estimates based on estate tax return samples. Revised from Data Book 1987, table 430]

Subject	Number of persons	Amount (millions of dollars)
GROSS ASSETS OF $325,000 OR MORE		
Total assets, all persons in group	20,300	14,767
Debts and mortages	18,400	3,523
Net worth	20,300	11,244
Men	13,100	7,309
Women	7,200	3,935
GROSS ASSETS OF $500,000 OR MORE		
Total assets, all persons in group	8,700	10,864
Debts and mortgages	8,000	2,919
Net worth	8,700	7,946
Men	6,000	5,655
Women	2,700	2,290
Selected assets:		
Cash	8,400	501
Corporate stock	7,200	2,376
Bonds	3,000	899
Real estate	8,500	5,840
Noncorporate business assets	3,500	467
NET WORTH OF $1,000,000 OR MORE		
Net worth, all persons in group (millionaires)	1,400	4,813

Source: U.S. Internal Revenue Service, "Estimates of Personal Wealth, 1982: A Second Look," SOI Bulletin, Spring 1988, pp. 31-46.

Table 427.-- WORTH OF RICHEST RESIDENTS: 1988

Name	Age (years)	Net worth (million dollars)
Barbara Cox Anthony	65	2,250
Harry Weinberg	80	850
Campbell family	...	650
Kelley family	...	500
Goldman family 1/	...	400
Richard Palmer Kaleioku Smart	75	300
Christopher Bagwell Hemmeter	49	225

1/ Also residents of Colorado, New York City, and Oklahoma.

Source: "The 400 Richest People in America," *Forbes*, October 24, 1988, pp. 142-347.

Section 14

PRICES

This section presents indexes of consumer prices for Honolulu, average prices for selected foods, and comparisons of Honolulu living costs with those in other metropolitan areas. Other statistics on prices are reported in Sections 7, 16, 17, 18, 21, and 23.

During the first six months of 1988, the Honolulu all-items consumer price index for all urban consumers (CPI-U) averaged 120.1, with the 1982-1984 level equal to 100. The index had increased 6.0 percent over the first half of 1987, 20.9 percent since 1983, and 79.5 percent since 1978. Prices have risen most rapidly since the 1982-84 base period for medical care (29.2 percent) and have dropped most rapidly for electricity (22.4 percent).

An "intermediate" budget for a four-person family living on Oahu was estimated at $31,893 as of the Autumn of 1981. This family budget was 26 percent higher than the corresponding urban United States average, and was first among the 25 American metropolitan areas surveyed. The "lower" budget was 33 percent above the national figure; the "higher" budget, 32 percent. An unofficial 1988 survey of selected U.S. metropolitan areas ranked Honolulu third in overall living costs, 16.8 percent above the median area.

The Honolulu consumer price index has been compiled by the U.S. Bureau of Labor Statistics since December 1963. This index measures the average change in prices of goods and services purchased by urban households. Prices are expressed as a percent of the average levels reported in 1982-1984, the base date. Current data for Honolulu and other cities are published in CPI Detailed Report, issued monthly by BLS.

Technical changes made in the consumer price index during the past decade have affected its coverage, treatment of specific expenditure categories, weights, base period, and frequency of publication. In 1978, the Bureau of Labor Statistics added a new index, the CPI-U, covering all urban consumers, to the older index, the CPI-W, which was limited to urban wage earners and clerical workers and their families. In 1983, the basis for measuring homeowners' costs was substantially modified. In 1987, component weights based on a 1982-1984 survey replaced the older weights derived from 1972-1973 data. At the same time, the publication of the Honolulu indexes was moved from a bimonthly to a semi-annual basis. Beginning in 1988, the base period was shifted to 1982-1984 instead of 1967. Both the CPI-U and CPI-W have been linked to older indexes going back to 1940.

Official comparisons of Honolulu and Mainland living costs are no longer being made. The annual four-person family budgets estimated by the Bureau of Labor Statistics for Honolulu and 24 (previously 39) Mainland areas were discontinued after 1981. The annual comparison of prices in Hawaii and Washington, D.C., compiled by the U.S. Office of Personnel Management to provide a basis for cost of living adjustments for Federal employees, has not been published since 1983. The only current information on intercity differences is that provided by a private consultant firm, Runzheimer International. Annual surveys of food prices in Honolulu and other cities were regularly made by the Honolulu Advertiser in conjunction with the Tampa Tribune from 1979 to 1987.

No composite wholesale or producer price index is available for Hawaii. Average wholesale prices of agricultural products are reported in Statistics of Hawaiian Agriculture, issued by the Hawaii Agricultural Statistics Service, and in various other publications of the State Department of Agriculture. Wholesale price statistics of other commodities are seldom available.

Data on prices and living costs for the nation as a whole and other areas are summarized in Statistical Abstract of the United States: 1988, Section 15. Long-term trends for Hawaii are traced in Historical Statistics of Hawaii, Section 5.

Table 428.-- CONSUMER PRICE INDEX (ALL ITEMS COMBINED), BY TYPE OF CONSUMER, FOR HONOLULU: SEMI-ANNUALLY, 1984 TO 1988

[1982-1984 average = 100]

Year	All urban consumers (CPI-U)			Urban wage earners and clerical workers (CPI-W)		
	Annual average	First half	Second half	Annual average	First half	Second half
1984 ...	103.5	102.5	104.4	104.3	103.0	105.5
1985 ...	106.8	106.3	107.4	107.9	107.4	108.4
1986 ...	109.4	108.9	109.9	110.3	109.9	110.7
1987 ...	114.9	113.3	116.5	115.9	114.3	117.6
1988 ...	(NA)	120.1	(NA)	(NA)	121.1	(NA)

NA Not available.

Source: U.S. Bureau of Labor Statistics, tapes tabulated by Hawaii State Data Center and press releases.

Table 429.-- CONSUMER PRICE INDEX (ALL ITEMS COMBINED), BY TYPE OF CONSUMER, FOR HONOLULU: 1940 TO 1977

[1982-1984 average = 100. Excludes rent before 1963]

Year	CPI-U: annual	CPI-W				
		Annual	March	June	September	December
1940	14.7	14.5	14.3	(NA)	14.6	(NA)
1941	15.5	15.3	14.8	(NA)	15.6	(NA)
1942	17.6	17.4	16.9	(NA)	17.8	(NA)
1943	18.9	18.7	18.6	18.8	18.8	18.8
1944	19.2	19.0	18.7	19.2	19.2	19.3
1945	19.7	19.5	19.4	19.5	19.5	19.6
1946	21.0	20.8	19.5	19.8	21.7	23.9
1947	24.4	24.1	23.5	23.8	24.4	24.7
1948	25.7	25.4	25.0	24.9	25.7	26.2
1949	25.2	24.9	25.1	24.7	25.3	23.8
1950	24.3	24.0	23.6	23.7	24.2	24.4
1951	25.7	25.4	25.4	25.3	25.5	26.0
1952	26.5	26.2	25.9	26.0	26.4	26.6
1953	26.7	26.4	26.0	26.4	26.6	26.5
1954	26.9	26.6	26.7	26.5	26.7	26.8
1955	27.3	27.0	27.0	26.9	27.1	27.2
1956	27.7	27.4	27.3	27.2	27.4	27.7
1957	28.6	28.3	27.7	27.7	28.8	29.3
1958	30.0	29.6	29.6	29.3	29.8	29.8
1959	30.5	30.1	30.0	29.9	30.2	30.6
1960	31.3	30.9	30.7	30.8	31.0	27.9
1961	32.1	31.7	31.4	31.7	31.9	32.1
1962	32.8	32.4	32.2	32.2	32.6	32.7
1963	33.5	33.1	33.2	33.1	33.1	33.2
1964	33.7	33.3	33.4	33.1	33.3	33.5
1965	34.4	33.9	33.7	33.7	33.9	34.4
1966	35.3	34.8	34.6	34.6	35.0	35.4
1967	36.3	35.8	35.4	35.7	36.0	36.4
1968	37.7	37.2	36.8	37.0	37.4	37.8
1969	39.4	38.8	38.4	38.7	39.2	39.7
1970	41.5	40.9	40.5	40.9	41.1	41.4
1971	43.2	42.6	41.8	42.4	43.4	43.3
1972	44.6	44.0	43.8	43.7	44.1	44.5
1973	46.6	45.9	45.1	45.6	46.4	47.5
1974	51.5	50.8	49.3	50.5	52.1	53.2
1975	56.3	55.5	54.4	55.2	56.4	57.2
1976	59.1	58.3	57.7	58.1	58.7	59.2
1977	62.1	61.2	60.2	61.0	62.1	62.6

Footnote and source follow next table.

Table 430.-- CONSUMER PRICE INDEX (ALL ITEMS COMBINED), BY TYPE OF CONSUMER, FOR HONOLULU: 1978 TO 1987

[1982-1984 average = 100]

Type of consumer and year	Annual average	February	April	June	August	October	December
Urban wage earners and clerical workers (CPI-W):							
1978	65.9	63.5	64.9	65.9	66.6	67.5	68.4
1979	73.2	70.2	71.6	72.9	74.2	75.6	77.1
1980	81.9	79.2	81.8	81.6	82.1	83.6	84.8
1981	90.5	87.2	89.6	90.8	91.8	92.7	92.8
1982	96.0	94.1	94.6	96.3	96.5	98.3	97.0
1983	99.8	98.4	99.1	97.9	99.6	102.3	103.2
1984	104.3	101.8	103.4	104.1	105.1	105.4	106.5
1985	107.9	107.5	107.4	107.5	107.8	108.4	109.5
1986	110.3	110.4	109.5	109.7	110.4	110.5	111.9
1987	115.9	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
All urban consumers (CPI-U):							
1978	66.9	64.7	65.9	66.8	67.4	68.6	69.5
1979	74.3	71.3	72.9	74.2	75.3	76.5	78.0
1980	83.0	80.2	82.6	82.6	83.6	85.2	85.8
1981	91.7	88.4	90.8	91.8	93.2	94.2	93.8
1982	97.2	95.2	95.6	97.7	97.9	100.0	98.0
1983	99.3	98.2	99.1	98.6	99.3	100.4	101.1
1984	103.5	102.0	102.9	103.4	103.9	104.4	105.3
1985	106.8	106.3	106.3	106.6	106.9	107.4	108.4
1986	109.4	109.4	108.6	108.7	109.5	109.8	110.9
1987	114.9	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)

NA Not available.

Source: 1964-1987 from U.S. Bureau of Labor Statistics tapes tabulated by Hawaii State Data Center. 1940-1963 from surveys by Eugene Danaher and Hawaii State Department of Labor and Industrial Relations, cited in Robert C. Schmitt, Historical Statistics of Hawaii (University Press of Hawaii, 1977), pp. 146-147, and Hawaii State Department of Planning and Economic Development, The Honolulu Consumer Price Index, 1940-1986 (Statistical Report 187, May 30, 1986), as shifted to 1982-1984 base by Hawaii State Data Center.

Table 431.-- CONSUMER PRICE INDEX FOR ALL URBAN CONSUMERS, BY EXPENDITURE CATEGORY AND COMMODITY AND SERVICE GROUP, FOR HONOLULU: ANNUAL AVERAGES, 1983 TO 1987

[Unless otherwise specified, 1982-1984 average=100]

Group	1983	1984	1985	1986	1987
All items	99.3	103.5	106.8	109.4	114.9
Food and beverages	99.5	103.6	107.8	110.0	114.1
Food	99.5	103.7	107.7	109.9	114.3
Food at home	99.1	103.4	106.7	109.0	113.4
Cereals and bakery products	99.9	103.8	109.4	112.8	117.2
Meats, poultry, fish, and eggs ...	99.7	101.7	102.6	104.3	108.5
Meats, poultry, and fish	100.0	101.3	102.6	104.3	107.9
Dairy products	99.8	101.2	103.6	105.0	105.9
Fruits and vegetables	96.2	106.4	111.9	112.3	116.5
Other foods at home	99.6	104.7	108.9	113.2	119.4
Food away from home	100.1	104.5	108.6	111.4	115.6
Alcoholic beverages	100.3	102.4	108.4	111.1	111.4
Housing	98.9	103.1	106.0	108.4	115.0
Shelter	98.7	104.0	108.5	113.9	122.1
Renters' costs 1/	102.7	109.4	115.0	121.1	127.3
Rent, residential	99.5	105.8	110.9	116.9	122.3
Other renters' costs	101.1	109.4	117.9	122.5	129.7
Homeowners' costs 1/	100.6	105.9	110.4	115.7	124.9
Owners' equivalent rent 1/	100.6	105.8	110.4	115.8	125.0
Fuel and other utilities	98.1	100.2	97.5	87.6	88.8
Fuels	95.3	97.7	93.0	75.2	77.8
Gas (piped) and electricity	95.3	97.7	92.9	74.9	77.4
Electricity	94.5	97.5	92.3	73.3	76.0
Utility (piped) gas	101.8	99.4	98.7	88.2	87.6
Household furnishings and operation ..	100.6	101.7	103.0	104.7	108.8
Apparel and upkeep	101.4	100.2	99.6	99.8	102.5
Apparel commodities	101.6	99.6	98.6	98.5	101.2
Men's and boys' apparel	100.5	101.0	104.2	106.8	114.7
Women's and girls' apparel	100.8	100.2	102.8	102.0	100.3
Footwear	100.0	101.9	103.2	100.8	100.4
Transportation	98.2	102.9	104.9	105.2	109.7
Private transportation	98.1	103.3	105.3	105.4	109.7
Motor fuel	97.9	99.7	100.7	88.5	90.9
Gasoline	98.0	99.9	100.8	88.5	91.0
Public transportation	99.0	100.0	101.8	103.8	109.1
Medical care	101.1	107.3	113.2	122.3	127.9
Entertainment	100.0	104.3	111.9	113.2	118.6
Other goods and services	101.4	106.6	112.5	119.6	129.7
Personal care	101.2	100.7	103.8	107.3	112.6

Continued on next page.

Table 431.-- CONSUMER PRICE INDEX FOR ALL URBAN CONSUMERS, BY EXPENDITURE CATEGORY AND COMMODITY AND SERVICE GROUP, FOR HONOLULU: ANNUAL AVERAGES, 1983 TO 1987 -- Con.

Group	1983	1984	1985	1986	1987
All items	99.3	103.5	106.8	109.4	114.9
Commodities	99.8	103.0	105.7	106.2	109.6
Food and beverages	99.5	103.6	107.8	110.0	114.1
Commodities less food and beverages	100.0	102.5	104.0	103.1	106.0
Nondurables less food and beverages	100.4	102.0	104.3	102.5	105.5
Durables	99.5	103.4	103.7	104.5	107.2
Services	98.9	103.9	107.9	112.3	119.8
Medical care services	101.2	107.4	113.0	122.1	128.1
Special indexes:					
All items less shelter	99.6	103.3	106.3	107.7	112.2
All items less medical care	99.2	103.2	106.4	108.6	114.1
All items less energy	99.5	103.9	107.8	112.0	118.1
Energy	96.7	98.8	97.1	82.3	84.8
Commodities less food	100.0	102.5	104.2	103.5	106.2
Nondurables less food	100.4	102.1	104.6	103.0	105.8
Nondurables	99.9	102.9	106.2	106.6	110.2
Services less rent of shelter 1/	101.3	105.8	109.2	112.6	119.0
Services less medical care	98.6	103.5	107.3	111.2	118.8

NA Not available.

1/ December 1982=100.

Source: U.S. Bureau of Labor Statistics, tapes tabulated by Hawaii State Data Center.

Table 432.-- CONSUMER PRICE INDEX FOR URBAN WAGE EARNERS AND CLERICAL WORKERS, BY EXPENDITURE CATEGORY AND COMMODITY AND SERVICE GROUP, FOR HONOLULU: ANNUAL AVERAGES, 1983 TO 1987

[Unless otherwise specified, 1982-1984 average=100]

Group	1983	1984	1985	1986	1987
All items	99.8	104.3	107.9	110.3	115.9
Food and beverages	99.5	103.7	108.3	110.8	115.3
Food	99.4	103.8	108.2	110.8	115.6
Food at home	99.1	103.6	107.4	110.1	114.9
Cereals and bakery products	99.7	103.5	108.8	111.7	115.7
Meats, poultry, fish, and eggs	99.5	102.4	105.2	107.6	112.9
Meats, poultry, and fish	99.7	102.1	105.3	107.8	112.4
Dairy products	99.8	101.1	103.5	104.9	105.5
Fruits and vegetables	96.5	106.3	111.1	112.3	117.9
Other foods at home	99.6	104.7	109.1	113.3	119.0
Food away from home	100.0	104.6	108.8	111.8	116.1
Alcoholic beverages	100.3	102.6	108.5	111.3	111.1
Housing	100.1	104.9	108.6	111.0	117.4
Shelter	100.3	106.6	112.3	117.7	126.0
Renters' costs 1/	(NA)	(NA)	102.8	108.2	113.2
Rent, residential	99.5	105.8	110.9	116.9	122.3
Other renters' costs	101.2	110.0	118.9	122.8	128.8
Homeowners' costs 1/	(NA)	(NA)	103.3	108.4	116.9
Owners' equivalent rent 1/	(NA)	(NA)	103.3	108.4	117.0
Fuel and other utilities	98.2	100.2	97.5	87.6	88.7
Fuels	95.4	97.7	93.1	75.3	77.7
Gas (piped) and electricity	95.4	97.7	93.0	75.1	77.5
Electricity	94.5	97.5	92.2	73.3	76.0
Utility (piped) gas	101.8	99.4	98.6	88.3	87.6
Household furnishings and operation	100.9	101.5	103.4	105.6	109.7
Apparel and upkeep	101.4	100.3	99.4	100.1	103.7
Apparel commodities	101.5	99.7	98.4	98.7	102.3
Men's and boys' apparel	100.3	101.1	104.9	107.6	116.6
Women's and girls' apparel	100.6	100.5	102.9	103.1	101.8
Footwear	100.0	101.8	103.0	100.8	100.4
Transportation	98.1	102.8	104.7	104.7	109.2
Private transportation	98.0	103.1	105.0	104.8	108.8
Motor fuel	97.9	99.7	100.7	88.5	90.9
Gasoline	98.0	99.9	100.8	88.5	91.0
Public transportation	99.0	99.9	101.8	103.6	110.2
Medical care	101.1	106.9	112.6	121.1	126.7
Entertainment	100.0	104.6	111.9	113.1	119.3
Other goods and services	101.7	106.6	112.5	119.1	128.7
Personal care	101.2	100.8	104.0	107.5	112.7

Continued on next page.

Table 432.-- CONSUMER PRICE INDEX FOR URBAN WAGE EARNERS AND CLERICAL WORKERS, BY EXPENDITURE CATEGORY AND COMMODITY AND SERVICE GROUP, FOR HONOLULU: ANNUAL AVERAGES, 1983 TO 1987 -- Con.

Group	1983	1984	1985	1986	1987
All items	99.8	104.3	107.9	110.3	115.9
Commodities	99.8	103.3	106.4	107.0	110.7
Food and beverages	99.5	103.7	108.3	110.8	115.3
Commodities less food and beverages	100.0	103.0	105.4	104.5	107.4
Nondurables less food and beverages	100.3	102.1	104.3	102.2	105.4
Durables	99.6	103.8	106.2	107.4	110.0
Services	99.9	105.6	109.8	114.3	121.9
Medical care services	101.2	107.0	112.3	120.7	126.9
Special indexes:					
All items less shelter	99.6	103.2	106.3	107.8	112.4
All items less medical care	99.7	104.1	107.6	109.6	115.2
All items less energy	100.0	104.8	109.0	113.3	119.3
Energy	96.9	98.9	97.5	83.0	85.4
Commodities less food	100.0	103.0	105.6	104.7	107.5
Nondurables less food	100.3	102.1	104.6	102.8	105.7
Nondurables	99.8	103.0	106.5	107.1	111.0
Services less rent of shelter 1/	(NA)	(NA)	101.0	104.1	110.5
Services less medical care	99.7	105.5	109.5	113.5	121.2

NA Not available.

1/ December 1982=100.

Source: U.S. Bureau of Labor Statistics, tapes tabulated by Hawaii State Data Center.

Table 433.-- RELATIVE IMPORTANCE OF COMPONENTS IN THE CONSUMER PRICE INDEX FOR HONOLULU: DECEMBER 1987

[Percent of all items]

Group	CPI-U 1/	CPI-W 2/
EXPENDITURE CATEGORY		
All items	100.000	100.000
Food and beverages	20.193	21.416
Food	18.810	19.780
Food at home	11.868	12.065
Cereals and bakery products	1.599	1.831
Meats, poultry, fish, and eggs	3.826	4.129
Meats, poultry, and fish	3.556	3.789
Dairy products	1.002	.948
Fruits and vegetables	2.608	2.500
Other foods at home	2.833	2.657
Food away from home	6.942	7.714
Alcoholic beverages	1.383	1.636
Housing	42.091	39.236
Shelter	31.158	28.696
Renters' costs	8.927	9.021
Rent, residential	7.669	8.155
Other renters' costs	1.259	.866
Homeowners' costs	22.021	19.483
Owners' equivalent rent	21.773	19.307
Fuel and other utilities	4.605	4.905
Fuels	2.252	2.378
Fuel oil, coal, and bottled gas	.020	.025
Fuel oil	.001	.004
Other fuels	.019	.021
Gas (piped) and electricity	2.232	2.353
Electricity	2.034	2.066
Utility (piped) gas	.198	.287
Household furnishings and operations	6.329	5.636
Apparel and upkeep	5.560	5.825
Apparel commodities	5.231	5.478
Men's and boys'	1.372	1.503
Women's and girls'	2.372	2.447
Footwear	.749	.826

Continued on next page.

Table 433.-- RELATIVE IMPORTANCE OF COMPONENTS IN THE CONSUMER PRICE INDEX FOR HONOLULU: DECEMBER 1987 -- Con.

Group	CPI-U 1/	CPI-W 2/
EXPENDITURE CATEGORY -- Con.		
Transportation	16.340	18.413
Private	14.506	16.990
Motor fuel	3.093	3.766
Public	1.834	1.422
Medical care	5.031	4.759
Entertainment	4.833	4.698
Other goods and services	5.953	5.653
Personal care	1.252	1.370
COMMODITY AND SERVICE GROUP		
All items	100.000	100.000
Commodities	43.410	47.041
Food and beverages	20.193	21.416
Commodities less food and beverages	23.217	25.626
Nondurables less food and beverages	14.421	15.688
Durables	8.796	9.938
Services	56.590	52.959
Medical care services	4.126	3.827
Special indexes:		
All items less shelter	68.842	71.304
All items less medical care	94.969	95.241
All items less energy	94.654	93.856
Energy	5.346	6.144
Commodities less food	24.600	27.262
Nondurables less food	15.804	17.324
Nondurables	34.614	37.104
Services less rent of shelter	25.906	24.647
Services less medical care	52.463	49.132

1/ Consumer price index for all urban consumers.

2/ Consumer price index for urban wage earners and clerical workers.

Source: U.S. Bureau of Labor Statistics, printout.

Table 434.-- RETAIL FOOD PRICES, BY ITEM, FOR HONOLULU AND U.S. CITIES: JUNE 19, 1986 AND JUNE 4, 1987

[See headnote to table 435]

Item	Honolulu price (dollars)		Honolulu as percent of U.S. average	
	1986	1987	1986	1987
Milk, homogenized, 1/2 gal.	1.39*	3.35	116	160
Eggs, Grade A, large, 1 doz.	1.19	1.29*	165	179
Cheese, sharp, 10 oz.	2.69	2.50*	121	111
Margarine, 1 lb.	0.59	0.59	97	107
Bread, white, 24 oz. loaf	1.35	1.67	193	235
Flour, 5 lbs.	1.09*	1.29*	102	116
Cereal, Special K, 12 oz.	2.79	3.05	137	139
Sugar, 5 lbs.	1.85	1.59*	116	99
Instant coffee, 8 oz. jar	6.63	4.59	129	124
Beans, dry, 1 lb.	0.99	0.97	174	173
Rice, 2 lbs.	2.03	2.39	107	120
Mayonnaise, 1 qt.	1.69*	2.05	97	127
Peanut butter, 18 oz. jar	1.99*	2.19	114	102
Tuna, 6 1/2 oz. can	0.65*	0.69*	97	103
Cling peach halves, 29 oz. can	1.49	1.59	137	134
Pineapple, 20 oz. can	0.95	1.03	104	116
Ice cream, 1/2 gal.	2.19*	2.00	143	123
Applesauce, 25 oz. jar	(NA)	1.51	(NA)	148
Tomato soup, 10 3/4 oz. can	(NA)	0.50*	(NA)	143
Orange juice concentrate, 1/	0.65	1.19*	123	137
Broccoli spears, 10 oz. pkg.	0.99	1.19	146	178
Roast, boneless, 1 lb. 2/	2.39	2.89	115	116
Sirloin steak, 1 lb. 3/	2.89	5.98	109	169
Ground beef, 1 lb.	1.69	1.69	146	129
Pork loin chops, 1 lb.	3.09	2.99	130	105
Ham, boneless, 1 lb.	1.69	1.15*	135	36
Bacon, regular slice, 1 lb.	1.99*	2.29*	94	105
Wieners, skinless, all meat, 1 lb.	1.49*	2.19*	84	127
Chicken, whole, Grade A, 1 lb.	0.79	0.75	118	110
Potatoes, 5 lbs.	1.89	1.80	167	113
Yellow summer squash, 1 lb.	(NA)	1.39	(NA)	193
Carrots, 1 lb.	0.49	0.49	120	126
Cabbage, 1 lb.	0.29	0.33*	104	110
Lettuce, 1 head	0.69	0.86	115	141
Bananas, 1 lb.	0.69	0.59*	177	144
Tomatoes, 1 lb.	0.69	0.69*	103	86
Tax on above items	2.29	2.53	-	-

Footnotes and source on next page.

Table 434.-- RETAIL FOOD PRICES, BY ITEM, FOR HONOLULU AND U.S. CITIES: JUNE 19, 1986 AND JUNE 4, 1987 -- Con.

* Special sale price.

1/ 6 oz. can in 1986; 12 oz. can in 1987.

2/ Rump roast in 1986; sirloin tip roast in 1987.

3/ Bone in 1986; boneless in 1987.

Source: Honolulu Advertiser, July 29, 1986, p. B-1; Sunday Star-Bulletin and Advertiser, June 28, 1987, p. A-13, as corrected.

Table 435.-- RETAIL FOOD PRICES, FOR HONOLULU AND MAINLAND CITIES: 1979 TO 1987

[June data for a "market basket" of 35 or more common food items surveyed in Honolulu and other U.S. cities. Data include sales taxes. This survey, organized by the Tampa Tribune, has included Honolulu since 1979. No survey was scheduled for 1988]

Date of survey	Honolulu			All cities	
	Amount (dollars)	Rank	Percent of U.S. average 1/	Number surveyed	Average amount 1/ (dollars)
1979: June 14	46.91	2	120.3	22	38.98
1980: June 19	49.60	2	121.0	22	40.98
1981: June 11	57.18	1	131.1	21	43.63
1982: June 3	56.72	1	126.2	21	44.93
1983: June 2	56.33	1	128.0	21	44.01
1984: May 31	59.10	1	127.0	21	46.52
1985: June 20	61.45	1	131.4	21	46.77
1986: June 19	59.64	1	125.3	21	47.58
1987: June 4	65.83	1	126.6	17	51.98

1/ Average prior to 1985 excluded Honolulu and Anchorage, both of which were included in number surveyed.

Source: Honolulu Advertiser, July 4, 1979, pp. A-1 and A-6; July 9, 1980, pp. A-1 and A-4; July 3, 1981, pp. A-1 and A-3; June 23, 1982, p. B-1; June 24, 1983, p. D-1; June 19, 1984, p. D-1; July 22, 1985, p. D-1; July 29, 1986, p. B-1; June 25, 1987, p. A-1, as corrected.

Table 436.-- RETAIL FOOD PRICE INDEXES, FOR KAUAI: 1985 AND 1987

[Totals for a "market basket" of common food items priced in Kauai, Honolulu and a group of Mainland cities, comparable to surveys reported in the preceding table]

Date	Kauai index	
	Honolulu = 100	Mainland = 100
June 1985	111	145
June 1987	119	147

Source: Data from Kauai Office of Economic Development, reported in Honolulu Advertiser, August 21, 1985, p. A-7, and Sunday Star-Bulletin and Advertiser, August 30, 1987, p. B-4.

Table 437.-- COMPARATIVE ANNUAL LIVING COSTS IN HONOLULU AND SELECTED OTHER METROPOLITAN AREAS: 1988

[For a four-person suburban family with a standard of living requiring an income of $50,000 in the median metropolitan area among the areas studied. Shown separately for the four costliest and two least costly areas]

Rank 1/	Metropolitan area	Cost (dollars)	Index
1	Boston, MA	62,116	124.2
2	Bridgeport, CT	61,588	123.2
3	Honolulu, HI	58,403	116.8
4	San Diego, CA	55,195	110.4
...	"Standard City, U.S.A."	50,000	100.0
...	San Antonio, TX	44,661	89.3
...	Baton Rouge, LA	44,020	88.0

1/ Among reported areas.

Source: Study by Runzheimer International, Rochester, Wis, cited in Runzheimer News Release, August 29, 1988, and Pacific Business News, September 26, 1988, p. 4.

Table 438.-- COST OF LIVING INDEXES AND PAY DIFFERENTIALS FOR FEDERAL EMPLOYEES IN HAWAII RELATIVE TO WASHINGTON, D.C.: 1983

Allowance category 1/	Oahu	Kauai	Maui County	Hawaii
INDEXES 2/				
Local retail:				
Private housing	121.7	114.6	120.9	113.1
Federal housing	105.0	106.7	113.4	104.6
Commissary, PX:				
Private housing	111.8	113.1	...	...
Federal housing	95.1	105.1	...	...
ALLOWANCE RATES 3/				
Local retail:				
Private housing	22.5	15.0	20.0	12.5
Federal housing	5.0	7.5	12.5	0
Commissary, PX:				
Private housing	12.5	12.5	...	...
Federal housing	0	5.0	...	...

1/ Based on access to military commissary and exchange facilities and type of housing occupied. "Local retail" refers to Federal employees who purchase goods and services from private retail establishments; "commissary, PX," to Federal employees who have unlimited access to and who use military commissary and exchange facilities. "Private housing" refers to Federal employees who occupy housing units that are privately owned or rented; "Federal housing," to Federal employees who occupy units owned or leased by a Federal agency.

2/ Washington, D.C., living costs=100. Based on a survey of comparative costs for Federal employees in 1983.

3/ Authorized allowance rate, expressed as a percentage differential, effective October 2, 1983.

Source: U.S. Office of Personnel Management, "Nonforeign Area Cost-of-Living Allowances for Guam and the State of Hawaii and Post Differentials for Certain Pacific Islands," Federal Personnel Manual System, FPM Letter 591-47 (1983).

Table 439.-- ANNUAL BUDGETS FOR THREE LEVELS OF LIVING FOR A FOUR-PERSON FAMILY AND A RETIRED COUPLE ON OAHU: AUTUMN 1981

[For trend data and detailed breakdowns, see *Data Book 1983*, pp. 372-376]

Budget level	Total budget (dollars)		Percent of U.S. urban average		Rank among 25 metro. areas	
	4-person family	Retired couple 1/	4-person family	Retired couple	4-person family	Retired couple
Lower budget	20,319	8,665	133	120	2	2
Intermediate budget	31,893	12,157	126	119	1	2
Higher budget	50,317	17,576	132	117	1	2

1/ Excludes personal income taxes.

Source: U.S. Department of Labor, Bureau of Labor Statistics, *Autumn 1981 Urban Family Budgets and Comparative Indexes for Selected Urban Areas (release USDL:82-139, April 16,1982)*, and *Three Budgets for a Retired Couple, Autumn 1981* (release USDL:82-266, July 30, 1982).

Table 440.-- COST OF RAISING A CHILD FROM BIRTH TO AGE 18: 1987

[In dollars. Moderate-cost level for a husband-wife family with no more than 5 children, living in the Western States]

Residence	18-year total	Annual average
Urban	106,784	5,932
Rural nonfarm	111,548	6,197

Source: U.S. Department of Agriculture, *Family Economics Review*, 1988, No. 2, pp. 36-37.

Section 15

BANKING, INSURANCE, AND BUSINESS ENTERPRISE

Statistics in this section relate to banks and other financial institutions, stocks and bonds, insurance, fires, and business firms.

There were 10 banks with 181 branches, eight savings and loan associations with 185 locations, three trust companies with six branches, and 64 industrial loan or small loan licensees with 199 branch offices in Hawaii as of December 31, 1987. Deposits in Island banks reached $9.3 billion at the end of 1986, compared with $4.8 billion in 1980. Assets of savings and loan associations stood at $4.9 billion in December 1984, almost three times their 1975 level. There were 136 credit unions with combined assets of $2.1 billion at the end of 1987.

Approximately 256,000 Hawaii residents held shares in U.S. public corporations or investment companies in 1985.

Life insurance in force in Hawaii at the end of 1986 amounted to $33 billion, more than twice the figure reported ten years earlier. For all 752 insurance companies doing business in the Islands, Hawaii premiums amounted to $1.3 billion in 1986 and losses, claims, and benefits paid came to $611 million. Fire losses in fiscal 1988 amounted to $13 million. Persons covered by the four major prepaid health insurance plans as of December 31, 1987, numbered 722,000, with annual membership dues of $551 million.

By mid-1988, almost 46,400 corporations and partnerships were registered to do business in Hawaii: 31,400 local ("domestic") corporations, 5,300 out-of-State ("foreign") corporations, and 9,700 partnerships. Business establishments with one or more employees in 1986 numbered 26,200; over half had fewer than five employees. During fiscal 1988, 3,459 new local corporations were formed. Business receipts of corporations in 1985 exceeded $22 billion; business receipts of partnerships and proprietorships in the same year amounted to respectively $1.9 billion and $1.6 billion. Hawaii's largest corporation, Amfac, Inc., reported annual sales of $2.2 billion. Business failures numbered 175 in 1987.

Sources for statistics on these subjects include the Hawaii State Department of Commerce and Consumer Affairs (specifically its Financial Institutions, Insurance, and Business Registration Divisions), the State Department of Taxation, county fire departments, the New York Stock Exchange, Dun and Bradstreet, Inc., local health insurance plans, the Hawaii Credit Union League, and the annual report on County Business Patterns issued by the U.S. Bureau of the Census. Historical Statistics of Hawaii, Sections 22 and 23, provides information for earlier periods. Comparable Mainland data appear in Sections 16 and 17 of Statistical Abstract of the United States: 1988.

Table 441.-- NUMBER OF FINANCIAL INSTITUTIONS, BY TYPES: 1979 TO 1987

[Excludes out-of-State branches of Hawaii-based institutions. As of December 31]

Type of charter, island, and year	Banks		Savings and loans associations		Trust companies		Industrial loan licensees	
	Firms	Locations	Associations	Locations	Firms	Locations	Firms	Locations
1979	9	159	9	136	4	7	77	247
1980	9	169	8	156	4	7	71	238
1981	9	171	9	163	4	7	76	236
1982	10	166	8	153	4	7	78	230
1983	10	162	8	166	4	7	72	209
1984	10	178	8	163	4	7	77	223
1985	10	179	8	163	4	7	66	201
1986	10	181	8	163	3	6	66	204
1987	10	185	7	148	3	6	64	199
TYPE OF CHARTER: 1987								
Federal	3	14	5	125	-	-	-	-
State	7	171	2	23	3	6	64	199
ISLANDS: 1987								
Hawaii	5	21	7	17	2	2	11	21
Maui	7	21	7	14	1	1	12	18
Lanai	1	1	1	1	-	-	-	-
Molokai	1	1	2	2	-	-	1	1
Oahu	8	127	7	105	3	3	59	150
Kauai	4	14	6	9	-	-	6	9
Niihau	-	-	-	-	-	-	-	-

Source: Hawaii State Department of Commerce and Consumer Affairs, Division of Financial Institutions, records.

Table 442.-- CHARACTERISTICS OF FINANCIAL INSTITUTIONS, BY TYPES: 1980 TO 1987

[Assets and deposits as of December 31]

Year	Banks			
	Assets ($1,000)	Deposits 1/ ($1,000)	Debits to demand deposits (million dollars)	Clearings (million dollars)
1980	5,412,104	4,792,209	84,337	42,720
1981	6,210,547	5,433,332	90,281	43,334
1982	6,736,172	6,020,395	89,384	42,812
1983	7,378,726	6,584,371	89,147	43,852
1984	8,145,831	7,183,928	91,806	43,628
1985	(NA)	(NA)	95,843	44,697
1986	(NA)	(NA)	108,555	46,296
1987	(NA)	(NA)	123,168	47,785

Year	Savings and loan associations 2/		Trust company assets ($1,000)	Industrial loan licensee assets ($1,000)
	Assets ($1,000)	Withdrawable shares 3/ ($1,000)		
1980	4,263,188	3,025,368	84,658	1,002,058
1981	4,528,178	3,098,834	106,149	1,100,895
1982	4,709,228	3,332,030	134,985	1,350,942
1983	4,713,164	3,613,952	43,853	1,043,626
1984	4,865,454	3,862,419	41,350	1,154,653
1985	(NA)	(NA)	40,715	1,286,792
1986	(NA)	(NA)	62,234	1,481,514
1987	(NA)	(NA)	49,506	2,398,151

NA Not available.

1/ Includes foreign deposits beginning in 1981.

2/ Hawaii offices only.

3/ Includes NOW accounts.

Source: Hawaii State Department of Commerce and Consumer Affairs, Division of Financial Institutions, Comparative Statements of Condition (semi-annual), monthly releases, and records.

Table 443.-- SELECTED FINANCIAL INSTITUTIONS STATISTICAL SUMMARY: 1983 TO 1986

[As of December 31]

Subject	1983	1984	1985	1986
Commercial banks:				
Assets (billion dollars)	7.3	8.2	9.2	10.6
Deposits (billion dollars)	6.3	7.0	8.0	9.3
Insured commercial banks:				
Assets (billion dollars)	7.2	7.4	8.3	9.2
Deposits (billion dollars)	6.3	7.0	8.0	9.3
FSLIC-insured savings institutions:				
Number	6	(NA)	6	6
Assets (million dollars)	3,298	(NA)	3,584	3,669
Mortgage loans outstanding (million dollars)	2,481	(NA)	2,646	2,619
Deposits (million dollars)	2,498	(NA)	2,748	2,719

NA Not available.
Source: Statistical Abstract of the United States (annual).

Table 444.-- CREDIT UNIONS: 1982 TO 1987

[As of December 31]

Year	Number of credit unions	Assets (dollars)	Shares (dollars)	Number of credit union members
1982	147	936,381,493	841,538,942	414,891
1983	144	1,085,367,118	983,903,868	422,240
1984	142	1,237,993,756	1,113,377,400	424,459
1985	137	1,535,426,151	1,390,984,301	425,973
1986	136	1,906,350,845	1,742,031,717	443,015
1987	136	2,145,826,560	1,938,767,096	461,944

Source: Hawaii Credit Union League, records.

Table 445.-- HAWAII RESIDENTS HOLDING SHARES IN U.S. PUBLIC CORPORATIONS OR INVESTMENT COMPANIES: 1959 TO 1985

Year	Shareholders	Year	Shareholders
1959	13,000	1980	175,000
1962	18,000	1981	174,000
1965	39,000	1983	234,000
1970	74,000	1985	256,000
1975	58,000		

Source: New York Stock Exchange, Inc., Shareownership in America 1959 (p. 27), Shareownership U.S.A., 1965 Census of Shareowners (p. 22), Shareownership - 1970, Census of Shareowners (p. 20), Shareownership 1975 (p. 19), Shareownership 1980 (p. 19), Shareownership 1981 (p. 21), Shareownership 1983 (p. 24), and Shareownership 1985 (p. 24).

Table 446.-- GENERAL EXCISE TAX BASE FOR INTEREST AND INSURANCE SOLICITORS: 1977 TO 1987

[In thousands of dollars. Data are on a cash basis accounting]

Year 1/	Interest	Insurance solicitors	Year 1/	Interest	Insurance solicitors
1977 2/	88,476	33,443	1983	184,895	214,972
1978 2/	89,448	36,420	1984	207,430	236,086
1979	133,242	174,676	1985	206,256	167,438
1980	174,790	303,264	1986	200,656	140,120
1981	205,989	255,321	1987	258,015	198,442
1982	205,443	199,512			

1/ Calendar year in which reported, including "prior years" reports. Income received in December is reported the following January, hence these annual totals generally refer to an "income year" ended November 30.

2/ Partly estimated.

Source: Hawaii State Department of Taxation, "General Excise and Use Tax Base" (annual tabular release).

Table 447.-- INSURANCE BUSINESS TRANSACTED IN HAWAII: 1970 TO 1986

[Includes data for all insurance companies, life or other, authorized in Hawaii]

Year	Number of companies authorized, Dec. 31	Premiums paid ($1,000)	Losses, claims and benefits paid ($1,000)	Cumulative net investments in Hawaii Dec. 31 1/ ($1,000)
1970	469	246,986	114,011	977,535
1971	485	276,707	119,880	1,168,952
1972	502	303,954	124,502	1,282,566
1973	517	316,897	132,102	1,354,145
1974	534	331,146	155,272	1,487,228
1975	537	380,480	170,561	1,634,549
1976	542	421,545	192,547	1,771,556
1977	546	488,437	225,675	1,944,507
1978	556	555,392	240,320	2,076,291
1979	579	617,571	280,598	2,234,252
1980	594	682,306	352,515	2,561,217
1981	640	755,298	352,523	2,565,525
1982	699	795,786	436,094	2,731,165
1983	720	872,156	605,722	2,725,453
1984	730	967,105	530,200	2,704,084
1985	752	1,132,282	592,550	2,680,318
1986	752	1,307,192	611,105	3,060,664

1/ Does not include balances in Hawaii banks.

Source: Hawaii State Department of Commerce and Consumer Affairs, Report of the Insurance Commissioner of Hawaii (annual).

Table 448.-- LIFE INSURANCE BUSINESS TRANSACTED IN HAWAII: 1970 TO 1986

Year	Number of companies, 1/ Dec. 31	Insurance written 2/ ($1,000)	Insurance in force, Dec. 31 ($1,000)	Premiums ($1,000)	Losses, claims, and benefits paid ($1,000)
1970	223	1,376,907	7,441,077	98,360	40,267
1971	233	1,565,272	8,127,837	106,524	45,301
1972	239	1,484,039	8,788,361	115,491	44,661
1973	262	1,935,643	9,433,897	120,229	47,980
1974	270	2,614,259	11,383,173	130,102	54,009
1975	279	2,046,479	12,650,488	138,597	53,291
1976	283	2,269,602	13,560,838	148,977	65,312
1977	285	2,432,658	14,680,847	161,725	63,040
1978	291	2,814,838	15,803,154	172,999	64,391
1979	311	2,999,500	17,122,778	186,487	74,627
1980	318	3,694,867	19,131,180	197,394	82,333
1981	346	4,995,919	21,287,888	204,049	98,942
1982	379	4,928,880	23,138,362	214,728	120,827
1983	390	6,230,150	26,133,708	227,848	141,096
1984	401	6,294,746	28,060,450	257,611	168,487
1985	417	6,965,896	30,478,068	302,554	199,101
1986	424	8,118,761	33,463,090	309,649	175,205

1/ Authorized in Hawaii, including fraternal benefit societies.

2/ Face value of insurance policies; includes insurance revived, increased, or transferred.

Source: Hawaii State Department of Commerce and Consumer Affairs, Report of the Insurance Commissioner of Hawaii (annual), and records.

Table 449.-- INSURANCE PREMIUMS AND LOSSES PAID, BY CLASS OF INSURANCE: 1986

[Dollars]

Class of insurance	Premiums	Losses, claims, and benefits paid
All classes	1,307,192,118	611,104,669
Life 1/	305,321,693	174,208,408
Fraternal	4,327,393	996,975
Fire, marine, casualty, and miscell.:		
Accident and health	93,152,470	49,117,409
Fire	17,171,627	3,506,070
Allied lines 2/	9,142,677	2,439,638
Homeowners multiple peril	52,301,884	18,626,880
Commercial multiple peril	63,215,704	16,990,992
Private passenger auto no-fault	52,410,265	32,623,425
Other private passenger auto liability	129,692,595	74,612,487
Commercial auto no-fault	5,200,325	4,242,962
Other commercial auto liability	43,119,056	26,518,300
Private passenger auto physical damage	87,040,105	39,981,178
Commercial auto physical damage	12,135,993	5,608,624
Workers' compensation	230,641,572	91,171,938
Other liability	89,635,753	31,656,364
Medical malpractice	15,261,446	5,499,059
Financial Guaranty	756,386	426,764
Glass	188,017	38,363
Burglary and theft	468,375	62,465
Boiler and machinery	1,665,958	636,901
Fidelity and surety	13,075,415	11,223,214
Ocean marine	4,938,002	2,569,877
Inland marine	14,943,212	2,551,790
Earthquake	367,152	...
All other 3/	19,636,459	8,549,818
Surplus lines	41,382,584	7,244,768

1/ Excludes annuities and $1,590,325 in premiums for insurance on nonresidents.

2/ Includes extended coverage; tornado, windstorm and hail; sprinkler and water damage; explosion, riot and civil commotion; growing crops; flood; rain; and damage from aircraft and vehicle.

3/ Aircraft (all risks); title, credit, mortgage guaranty; livestock; service fees, excess of loss.

Source: Hawaii State Department of Commerce and Consumer Affairs, Report of the Insurance Commissioner of Hawaii, 1987, p. 8.

Table 450.-- INSURANCE BUSINESS TRANSACTED IN HAWAII, BY LOCATION OF HOME OFFICE: 1986

[Money amounts in millions of dollars. For insurance companies authorized to do business in Hawaii]

Subject	All companies	Domestic companies 1/	Foreign companies 2/	Alien companies 3/ (U.S. business only)
Number of companies, Dec. 31 ...	752	19	715	18
Financial condition, Dec. 31:				
Assets	1,126,491.4	947.7	1,101,203.3	24,340.4
Liabilities exc. capital and surplus	1,003,388.1	761.4	979,793.5	22,833.2
Policyholder's surplus inc. capital	123,103.2	186.3	121,409.7	1,507.2
Capital	3,589.2	21.5	3,544.7	23.0
Net gain or loss	-4,164.2	-5.8	-4,001.2	-157.2
Hawaii business:				
Direct premiums written	1,434.5	422.5	973.7	38.3
Claims and benefits paid	699.6	200.8	473.9	24.8
Investments in Hawaii, Dec. 31 4/	3,060.7	210.9	2,817.6	32.2
Mortgage loans (principal indebtedness)	1,100.0	107.8	970.9	21.3
Collateral loans (amount lent)	1.8	1.8	-	-
State and county bonds 5/	550.1	21.3	528.9	-
Utilities stocks and bonds 5/	276.6	26.2	240.8	9.5
Industrial and misc. stocks and bonds 5/	933.9	46.8	885.9	1.2
Real estate 5/	198.3	7.0	191.1	0.2
Balances in Hawaii banks	19.0	14.1	4.6	0.3

Z Less than $50,000.

1/ A domestic insurer is one formed under the laws of Hawaii.

2/ A foreign insurer is one formed under the laws of any State of the United States (including the District of Columbia and Commonwealth of Puerto Rico) other than Hawaii.

3/ An alien insurer is one formed under the laws of a nation other than the United States.

4/ Does not include balances in Hawaii banks.

5/ Market value less encumbrances for real estate.

Source: Hawaii State Department of Commerce and Consumer Affairs, Report of the Insurance Commissioner of Hawaii, 1987, pp. 12, 14, 16, 17, 38, and 39.

Table 451.-- PREPAID HEALTH PLAN STATISTICAL SUMMARY: 1940 TO 1987

Year	Surveyed Health Maintenance Organizations					Commercial carrier insurance premiums 5/ ($1,000)
	Number	Persons covered 1/		Membership dues 3/		
		Number	Rate 2/	Total ($1,000)	Rate 4/ (dollars)	
1940	1	1,310	3	45	34	204
1945	1	9,268	21	165	18	427
1950	1	48,056	109	1,289	27	1,829
1955	1	105,562	239	3,093	29	4,508
1960	2	252,763	484	10,705	42	7,720
1965	2	371,328	635	23,109	62	11,651
1970	2	480,554	728	44,761	93	23,000
1975	2	576,092	754	98,419	171	35,564
1980	2	654,690	773	213,601	326	60,150
1985	3	718,787	772	420,037	584	92,015
1986	4	719,560	765	478,916	666	93,152
1987	4	722,429	753	551,088	763	(NA)

NA Not available.

1/ Subscribers and dependents, whether on a group or individual basis.

2/ Per 1,000 civilian population, excluding military dependents.

3/ Includes both employers' and employees' contributions.

4/ Per covered person.

5/ For accident and health insurance.

Source: Data provided by BestCare, Hawaii Medical Service Association, Island Care, and Kaiser Foundation Health Plan, Inc.; Report of the Insurance Commissioner (annual).

Table 452.-- PREPAID HEALTH PLANS: 1984 TO 1987

Subject	1984	1985	1986	1987
BestCare: 1/				
Members covered, Dec. 31 2/	...	...	203	3,197
Premium revenue 3/ ($1,000)	...	...	49	1,573
Hawaii Medical Service Association:				
Persons covered, Dec. 31 2/	548,015	567,210	567,287	555,394
Membership dues 3/ ($1,000)	290,855	330,045	378,387	433,826
Island Care:				
Persons covered, Dec. 31 2/	9,418	13,526	14,924	16,771
Membership dues 3/ ($1,000)	5,565	8,233	10,193	12,970
Kaiser Foundation Health Plan:				
Persons covered--2/				
Annual average	135,077	137,359	136,608	141,396
Dec. 31	137,683	138,051	137,146	147,067
Membership dues 3/ ($1,000)	72,281	81,759	90,287	102,719
Commercial carrier premiums for accident and health insurance ($1,000)	89,035	92,015	93,152	(NA)

NA Not available.
1/ Enrollment began August 1986.
2/ Subscribers and dependents, whether on a group or individual basis.
3/ Includes both employers' and employees' contributions.

Source: Data provided by BestCare, Hawaii Medical Service Association, Island Care, and Kaiser Foundation Health Plan, Inc.; *Report of the Insurance Commissioner* (annual).

Table 453.-- HEALTH INSURANCE COVERAGE OF PERSONS UNDER 65 YEARS OF AGE: 1985

[Excludes persons employed in armed forces and in agriculture and members of their families, as well as those 65 years and over. Detail adds to more than indicated totals and sub-totals because of multiple coverage of some persons]

Subject	Persons under 65	Private coverage			Public coverage 1/	No health insurance 2/
		Total	Employer	Other private		
Number (1,000) ..	805	649	569	113	111	95
Percent	100.0	80.6	70.7	14.0	13.8	11.8

1/ Medicaid, Medicare, or CHAMPUS.

2/ For the nation as a whole, 17.4 percent of the nonelderly population was without health insurance. Among the 47 States (plus D.C.) for which data were available, Hawaii ranked fifth lowest in percent without coverage.

Source: Employee Benefit Research Institute, Uninsured in the United States: The Nonelderly Population Without Health Insurance (1987), pp. 21-22. Based on the March 1986 Current Population Survey.

Table 454.-- FIRES AND FIRE LOSSES, FOR OAHU: 1979 TO 1988

[Years ended June 30]

Year	Fires	Losses ($1,000)	Year	Fires	Losses ($1,000)
1979	8,497	8,027	1984	6,666	11,363
1980	8,749	11,898	1985	6,377	10,700
1981	7,564	15,071	1986	4,367	9,172
1982	6,518	11,394	1987	4,835	9,582
1983	6,982	10,751	1988	3,288	6,632

Source: 1984-1985 Annual Report of the Fire Department, City and County of Honolulu, p. 26, and records.

Table 455.-- FIRE ALARMS, DEATHS, AND LOSSES, BY COUNTIES: 1986 TO 1988

[Years ended June 30]

Subject	State total	Hono-lulu	Hawaii	Kauai	Maui
1986					
Fire alarms	7,810	5,885	883	390	652
Fires	5,839	4,367	630	328	514
False alarms	1,012	818	63	62	69
Needless alarms 1/ ..	959	700	190	-	69
Fire deaths	2/ 8	2/ 7	1	-	-
Fire losses ($1,000) ..	14,177	9,172	2,757	1,041	1,207
1987					
Fire alarms	7,888	6,244	815	249	580
Fires	6,036	4,835	558	205	438
False alarms	887	701	66	44	76
Needless alarms 1/ ..	965	708	191	-	66
Fire deaths	6	-	1	1	4
Fire losses ($1,000) ..	14,010	9,582	2,599	290	1,539
1988					
Fire alarms	7,129	4,836	819	294	1,180
Fires	5,139	3,288	599	216	1,036
False alarms	1,124	873	93	78	80
Needless alarms 1/ ..	866	675	127	-	64
Fire deaths	7	5	-	2	-
Fire losses ($1,000) ..	13,351	6,632	4,454	802	1,463

1/ Non-fire incidents, such as smoke scares or overheated food.

2/ Includes 2 possible homicides.

Source: Compiled by Hawaii State Department of Business and Economic Development from Honolulu Fire Department, Hawaii County Fire Department, Kauai Fire Department, and Maui County Department of Fire Control.

Table 456.-- CHARACTERISTICS OF BUSINESS ESTABLISHMENTS: 1976 TO 1986

[Data refer to establishments with taxable payrolls. Coverage excludes government and self-employed workers]

Year	Number of employees 1/	Payroll ($1,000)		Number of establishments, by employment-size class 2/		
		First quarter	Annual	Total	1 to 4	5 to 9
1976	252,252	577,390	2,412,122	17,271	9,135	3,359
1977	263,079	630,090	2,637,726	18,660	9,942	3,741
1978	282,256	699,638	2,966,228	19,222	9,849	3,991
1979	302,763	809,676	3,451,980	20,621	10,568	4,285
1980	314,106	930,312	3,849,636	21,125	10,928	4,346
1981	312,195	984,003	4,092,561	21,264	10,969	4,337
1982	309,546	1,026,323	4,264,863	21,655	11,095	4,592
1983	308,627	1,094,458	4,505,090	24,519	13,320	5,039
1984	318,635	1,192,429	4,824,535	25,093	13,588	5,225
1985 3/	331,196	1,268,106	5,271,750	25,742	14,058	5,261
1986	345,167	1,382,381	5,790,531	26,212	14,070	5,474

Year	Number of establishments by employment-size class -- Con.					
	10 to 19	20 to 49	50 to 99	100 to 249	250 to 499	500 or more
1976	2,332	1,544	566	248	49	38
1977	2,397	1,642	589	257	52	40
1978	2,695	1,721	602	264	57	43
1979	2,866	1,864	653	281	54	50
1980	2,868	1,906	666	311	55	45
1981	2,973	1,905	663	309	63	45
1982	2,921	2,005	648	296	56	42
1983	3,093	2,001	667	305	51	43
1984	3,167	1,990	709	313	52	49
1985	3,181	2,084	734	314	58	52
1986	3,306	2,128	784	331	68	51

1/ For week including March 12.

2/ Data for 1983 and later years refer to establishments active anytime during the year; data for 1982 and earlier years refer to establishments in business at the end of the year.

3/ Revised.

Source: U.S. Bureau of the Census, County Business Patterns (annual).

Table 457.-- CHARACTERISTICS OF BUSINESS ESTABLISHMENTS, BY COUNTIES: 1985 AND 1986

[Excludes government employees and self-employed persons]

Year and county	Number of establishments 1/	Number of employees 2/	Payroll ($1,000)	
			First quarter	Annual
1985 3/				
State total	25,742	331,196	1,268,106	5,271,750
Hawaii	2,657	24,783	82,766	337,579
Honolulu	19,340	265,094	1,[illegible]45,038	4,353,005
Kauai	1,209	13,454	44,643	189,828
Maui	2,528	27,781	95,326	389,441
Statewide	8	84	333	1,697
1986				
State total	26,212	345,167	1,382,381	5,790,531
Hawaii	2,716	26,639	90,502	369,845
Honolulu	19,561	274,517	1,136,476	4,758,710
Kauai	1,271	14,652	49,124	212,265
Maui	2,656	29,278	105,793	448,267
Statewide	8	81	486	1,444

1/ Data refer to establishments active anytime during the year.
2/ For week including March 12.
3/ Revised.
Source: U.S. Bureau of the Census, *County Business Patterns, 1986, Hawaii*, CBP-86-13 (August 1988), p. 17.

Table 458.-- CHARACTERISTICS OF BUSINESS ESTABLISHMENTS, BY MAJOR INDUSTRY GROUP: 1985 AND 1986

[Excludes government and self-employed workers]

Major industry group	Number of establishments 1/	Number of employees 2/	Annual payroll ($1,000)
1985 4/			
Total	25,742	331,196	5,271,750
Agricultural services, forestry, fisheries	225	1,697	20,521
Mining	14	186	5,317
Contract construction	1,703	17,022	451,539
Manufacturing 3/	988	20,914	374,476
Food and kindred products	219	8,444	150,299
Apparel and other textile products	176	3,496	35,953
Transportation, other public utilities	1,088	30,447	676,649
Wholesale trade	1,827	18,281	364,839
Retail trade 3/	6,704	92,080	968,922
Eating and drinking places	1,951	37,875	297,029
Finance, insurance, and real estate	3,152	29,939	539,699
Services 3/	8,145	116,442	1,796,602
Hotels and other lodging places	250	33,225	468,142
Health services	1,921	21,361	465,064
Nonclassifiable establishments	1,896	4,188	55,185
1986			
Total	26,212	345,167	5,790,531
Agricultural services, forestry, fisheries	231	1,759	23,516
Mining	15	172	5,475
Contract construction	1,742	18,417	507,934
Manufacturing 3/	1,007	20,988	415,480
Food and kindred products	221	8,208	159,513
Apparel and other textile products	197	3,837	42,237
Transportation, other public utilities	1,135	31,968	739,870
Wholesale trade	1,837	19,037	399,569
Retail trade 3/	6,959	96,074	1,050,293
Eating and drinking places	2,051	40,449	322,485
Finance, insurance, real estate	3,204	31,727	626,702
Services 3/	8,457	121,398	1,969,545
Hotels and other lodging places	261	33,067	515,285
Health services	1,997	23,251	518,393
Nonclassifiable establishments	1,625	3,627	52,148

Footnotes and source on next page.

Table 458.-- CHARACTERISTICS OF BUSINESS ESTABLISHMENTS, BY MAJOR INDUSTRY GROUP: 1985 AND 1986 - Con.

1/ Data refer to establishments active anytime during the year.
2/ For week including March 12.
3/ Includes subgroups not shown separately.
4/ Revised.
Source: U.S. Bureau of the Census, County Business Patterns, 1986, Hawaii, CBP-86-13 (August 1988), pp. 1-2.

Table 459.-- CHARACTERISTICS OF BUSINESS ESTABLISHMENTS, BY EMPLOYMENT-SIZE CLASS: 1986

[Excludes government employees and self-employed persons]

Employment-size class	Number of establishments	Number of employees	Annual payroll ($1,000)
Total	26,212	345,167	5,790,531
1 to 4	14,070	24,755	491,604
5 to 9	5,474	36,081	525,851
10 to 19	3,306	44,480	665,574
20 to 49	2,128	64,429	961,375
50 to 99	784	53,028	831,504
100 to 249	331	48,654	863,536
250 to 499	68	23,932	420,013
500 to 999	33	22,386	379,504
1,000 or more	1/ 18	27,422	651,571

1/ 1,000-1,499 employees, 12 establishments; 1,500-2,499, 5 establishments; 2,500-4,999, 1 establishment.
Source: U.S. Bureau of the Census, County Business Patterns, 1986, Hawaii, CBP-86-13 (August 1988), pp. 3, 12, and 16.

Table 460.-- REGISTERED CORPORATIONS AND PARTNERSHIPS: 1985 TO 1988

[Excludes eleemosynary corporations]

Subject	1985	1986	1987	1988
Domestic (Hawaii) corporations:				
Formed 1/	2,969	3,010	3,191	3,459
Dissolved or merged 2/	2,617	2,183	2,221	239
On record, June 30	26,362	27,189	28,159	31,379
Foreign (non-Hawaii) corporations:				
Qualified 1/	581	596	626	692
Withdrawn, merged, or cancelled 2/	320	371	351	185
On record, June 30	4,320	4,545	4,820	5,327
Partnerships:				
Registered 1/	1,388	1,557	1,392	1,367
Dissolved or cancelled 2/	1,565	1,505	1,297	645
On record, June 30	8,824	8,876	8,971	9,693

1/ Annual totals for fiscal years ended June 30.

2/ Annual totals for fiscal years ended June 30. Annual fluctuations may partly reflect the sporadic purging of defunct firms from the registration files.

Source: Hawaii State Department of Commerce and Consumer Affairs, Business Registration Division, October 17, 1988.

Table 461.-- MAJOR CORPORATE FAMILIES HEADQUARTERED IN HAWAII: 1986

[Includes major ultimate parent companies headquartered in Hawaii and meeting the following criteria: Conduct business from 2 or more locations; net worth of $500,000 or more; controlling interest in one or more subsidiary companies]

Ultimate parent company	Affiliates 1/ In Hawaii	Affiliates 1/ On Mainland	Sales (million dollars)
Parent companies with Mainland affiliates:			
Alexander & Baldwin, Inc.	4	4	485
Amelco Corporation	4	1	105
Bancorp Hawaii Inc.	11	1	(NA)
FP Investments Inc.	8	2	9
Pacific Resources Inc.	12	1	1,680
Sultan, Edward D., Company, Ltd.	2	1	7
Parent companies without Mainland affiliates (30 companies)	63	-	2/ 1,634

NA Not available.
1/ Excludes divisions but includes all subsidiary companies.
2/ Excludes sales of 5 companies not reporting sales.
Source: Dun & Bradstreet, Inc., Dun's Marketing Services, America's Corporate Families 1986 (1986).

Table 462.-- CHARACTERISTICS OF CORPORATIONS, PARTNERSHIPS, AND PROPRIETORSHIPS: 1981, 1983, AND 1985

[Money amounts in millions of dollars]

Subject	1981	1983	1985
CORPORATIONS 1/			
Number of corporations	16,585	18,420	19,513
Taxable	7,536	8,040	8,708
Nontaxable	9,049	10,380	10,805
Business receipts	17,878	21,072	22,714.3
Taxable corporations	10,941	12,368	12,554.7
Nontaxable corporations	6,937	8,704	10,159.6
Taxable income, excluding net losses 2/	706.5	682.8	845.7
PARTNERSHIPS			
Number of partnerships	7,107	7,378	7,398
With net profit	3,331	3,453	3,389
With net loss	3,776	3,925	4,009
Number of partners	105,983	83,313	3/ 80,208
Business receipts	1,661.8	1,737.9	1,918.1
Businesses with net profit	1,018.0	1,065.8	1,294.0
Businesses with net loss	643.8	672.2	624.1
Net profit reported	311.8	358.1	431.1
Net loss reported	346.0	366.3	439.1
PROPRIETORSHIPS			
Number of proprietorships	54,473	54,182	59,475
With net profit	33,475	36,330	41,510
With net loss	20,998	17,852	17,965
Business receipts	868.5	1,236.2	1,579.1
Businesses with net profit	717.3	1,050.6	1,439.4
Businesses with net loss	151.2	185.7	139.7
Net profit reported	184.4	254.0	321.3
Net loss reported	58.4	63.9	53.3

1/ Includes domestic, foreign, and small business corporations.

2/ Includes taxable income reported by small business corporations, taxable to individual stockholders only.

3/ For Oahu only.

Source: Hawaii State Department of Taxation, Hawaii Income Patterns, Corporation, Proprietorship, Partnership (biennial), and records.

Table 463.-- TOTAL REVENUES AND NET INCOME OF MAJOR CORPORATIONS: 1987 AND 1986

[In thousands of dollars. Includes top 10 in each category in 1987]

Company	Total revenues		Net income	
	1987	1986	1987	1986
Amfac	2,195,062	1,962,204	5,021	-66,599
Castle & Cooke	1,749,118	1,676,397	97,430	43,925
Pacific Resources	954,985	816,138	6,145	27,783
Alexander & Baldwin	655,276	536,668	120,353	92,380
Hawaiian Electric Industries ...	635,086	558,059	37,809	43,092
Bancorp Hawaii	492,796	485,475	53,943	46,185
Hawaiian Telephone 1/	458,361	440,198	55,091	53,001
First Hawaiian Inc.	333,323	311,411	35,495	30,750
HAL, Inc.	299,114	225,010	-8,776	3,443
Aloha Airgroup	124,700	115,700	5,600	6,000
FirstFed America 2/	77,409	79,887	10,462	5,229
International Holding Capital 3/	58,662	51,341	5,662	-1,979

1/ Wholly owned by GTE Corp.
2/ Fiscal year ended September 30.
3/ Fiscal year ended June 30.
Source: Kit Smith, "Ranking the performance of Hawaii's top companies," Sunday Star-Bulletin & Advertiser, April 10, 1988, p. B-4.

Table 464.-- LARGEST PUBLIC AND PRIVATE CORPORATIONS: MOST RECENT AVAILABLE YEAR

[Data may include sales and employment on the Mainland or abroad]

Company	Year founded 1/	Sales (million dollars) 2/	Employees
Amfac	1849	2,195.1	18,000
Castle & Cooke	1851	1,749.1	39,000
Pacific Resources Inc. (PRI)	1904/1970	955	902
Alexander & Baldwin	1870/1900	655.3	3,120
Hawaiian Electric Industries	1891/1983	635.1	2,431
Chevron USA Inc. (Hawaii Division)	1904	530	278
Dillingham Construction Pacific	1902	514	2,300
Bancorp Hawaii	1897/1971	492.8	3,287
GTE Hawaiian Tel	1883	458.4	4,300
Hawaii Medical Service Assn. (HMSA)	1938	433.8	920

1/ If two years are given, the first is the founding date of the original company, the second is when it became a holding company, was sold, or legally changed its name.

2/ Latest available data. May be fiscal year or calendar year.

Source: Diane Chang and Tom Yoneyama, "Top 250," Hawaii Business, August 1988, pp. 72 and 74.

Table 465.-- NET INCOME OR LOSS AND TOTAL REVENUES OF SELECTED COMPANIES: 1986 AND 1987

[Based on 1987 ranks for reporting companies]

Company	Net income or loss ($1,000)		Revenues ($1,000,000)	
	1986	1987	1986	1987
Largest net incomes:				
Alexander & Baldwin	92,380	120,353	536.7	655.3
Castle & Cooke	43,925	97,430	1,676.4	1,749.1
GTE Hawaiian Tel	53,001	55,091	440.2	458.4
Largest net losses:				
Hawaii Dental Service	1/ 562	2,132	38.5	40.0
HAL Inc.	1/ 3,433	8,776	225.0	299.0
HMSA	1/ 14,814	13,902	378.4	433.8

1/ Net income.

Source: Diane Chang and Tom Yoneyama, "Top 250," Hawaii Business, August 1988, p. 70.

Table 466.-- EMPLOYEES AND REVENUES FOR SELECTED COMPANIES: 1987

Company	Employees	Revenues	
		Total (mil. dol.)	Per employee ($1,000)
Highest revenues per employee:			
Waitec Development	3	47.5	15,800
Wailea Point Development	7	47	6,700
Nissan Motor Corporation	33	100	3,000
Lowest revenues per employee:			
MTL Inc.	1,111	18.9	17.0
Spencecliff Corporation	1,139	29.4	25.8
TS Restaurants	880	26.2	29.8

Source: Diane Chang and Tom Yoneyama, "Top 250," Hawaii Business, August 1988, p. 62.

Table 467.-- MINORITY-OWNED BUSINESSES: 1982

[Includes partnerships in which at least half of the partners were members of a specified minority group, and corporations in which 50 percent or more of the shares were owned by such persons. For detail by industry divisions and counties, see source]

Minority 1/	Number of firms		Sales and receipts ($1,000)	
	Total	With paid employees	Total	With paid employees
All minorities 2/	30,129	3,142	2,443,206	2,092,348
Black	330	23	5,857	3,209
Hispanic origin	759	58	17,913	11,634
Mexican	144	14	7,965	6,989
Puerto Rican	278	15	3,748	1,889
Other Central or South American	61	2	1,342	(D)
European Spanish	195	21	3,121	1,777
Other Hispanic	81	5	1,737	(D)
Other minorities	29,040	3,061	2,419,436	2,077,505
American Indian	43	3	1,189	696
Asian Indian	74	26	1,585	1,174
Chinese	4,369	556	538,131	477,987
Japanese	17,327	1,852	1,104,690	904,563
Korean	1,240	185	59,291	41,363
Vietnamese	126	5	1,677	485
Other Asian	155	43	220,528	218,452
Filipino	3,341	157	50,446	20,781
Hawaiian 3/	2,077	167	44,113	23,337
Other Pacific Islander	169	60	395,418	387,272
Other minorities	119	6	2,368	1,396

D Withheld to avoid disclosing data for individual companies.

1/ Persons of mixed race were instructed to report the race with which they most closely identified. Whites (Caucasians), although only 34.4 percent of the 1980 population of Hawaii, were treated as the "majority" group for census purposes.

2/ Not corrected for double-counting. In this survey, it was possible for a minority-owned firm to be classified in more than one minority group.

3/ For the United States as a whole, Hawaiians owned 3,305 firms (291 with paid employees) with sales and receipts of $85,579,000 ($48,714,000 for those with paid employees).

Source: U.S. Bureau of the Census, 1982 Survey of Minority-Owned Business Enterprises, MB82-1, Black (August 1985), p. 19; MB82-2, Hispanic (September 1986), p. 48; and MB82-3, Asian Americans, American Indians, and Other Minorities (October 1986), pp. 5 and 58.

Table 468.-- WOMEN-OWNED BUSINESSES: 1982

[Includes partnerships in which at least half of the partners were women, and corporations in which 50 percent or more of the shares were owned by women]

Subject	State total	Oahu
All firms:		
Number	16,821	12,506
Sales and receipts ($1,000)	356,498	264,298
Firms with paid employees:		
Number	1,248	928
Employees for pay period incl. March 12	5,538	4,055
Annual payroll ($1,000)	39,356	28,313
Sales and receipts ($1,000)	206,581	153,445

Source: U.S. Bureau of the Census, 1982 Economic Censuses, WB82-1, Women-Owned Businesses (April 1986), pp. 13 and 33.

Table 469.-- BUSINESS CLIMATE INDEXES: 1988

Index	Number of subindexes	Rank 1/	Grade
Performance	3	12	B
Business vitality	3	35	C
Capacity	4	15	B
Policy	7	39	D

1/ Among the 50 States.
Source: The Corporation for Enterprise Development, Making the Grade: The 1988 Development Report Card for the States. (April 1988).

Table 470.--BUSINESS STARTS AND FAILURES, BY INDUSTRY SECTOR AND LOCATION: 1986 AND 1987

Location and industry sector	Starts		Failures	
	1986	1987	1986	1987 1/
Firms, State total	1,071	997	283	175
Honolulu	594	573	160	98
Rest of State	477	424	123	77
Employment, State total	6,680	6,211	(NA)	(NA)
Honolulu	3,944	3,516	(NA)	(NA)
Rest of State	2,736	2,695	(NA)	(NA)
Firms, all sectors	1,071	997	283	175
Agriculture, forestry, fishing	31	20	5	2
Mining	-	-	-	-
Construction	104	83	18	16
Manufacturing	83	80	12	5
Transportation, public utilities	52	47	9	5
Wholesale trade	133	108	38	11
Retail trade	326	370	69	34
Finance, insurance, real estate	56	62	54	6
Services	285	221	78	92
Unclassifiable	1	6	-	4

NA Not available.

1/ Preliminary.

Source: The Dun & Bradstreet Corporation, *Business Starts Record 1986/1987* (1988), pp. 3 and 16, and *Business Failure Record 1986 Final 1987 Preliminary* (1988), pp. 4, 5, and 16.

Table 471.-- BUSINESS FAILURES: 1981 TO 1987

[Commercial and industrial failures only through 1983, excluding failures of banks, real estate, insurance, holding, and financial companies, steamship lines, travel agencies, etc. Data for 1984 and later years based on expanded coverage and new methodology and are therefore not generally comparable with earlier data]

Subject	1981	1982	1983	1984	1985	1986	1987 1/
Number of failures	89	146	145	225	250	283	175
Current liabilities (million dollars) ...	23.5	58.3	34.2	148.8	280.6	(NA)	(NA)

NA Not available.

1/ Preliminary.

Source: The Dun & Bradstreet Corporation, Business Failure Record 1986 Final 1987 Preliminary (1988), p. 4, and data from same source cited in Statistical Abstract of the United States for 1985-1988.

Section 16

COMMUNICATIONS

This section presents statistics on the usage, finances, and operations of the Postal Service and of various communications media: telephone, telegraph, radio, television, newspapers, periodicals, and books. Sections 12 and 15 contain employment and payroll data for communications establishments.

Hawaii is served by all major communications media. In 1988 it had 147 post offices and stations handling 400 million pieces of mail and accounting for postal receipts of $120 million. There were 520,000 telephone access lines in service, 364,000 telephone homes, about 2.4 billion local calls originated, 12 million completed interisland calls (in 1981), and 32 million incoming and outgoing transpacific calls (in 1980). Telegraph messages to and from Hawaii in 1984 totaled 112,000. The 47 commercial, public and educational radio stations in the Islands in 1988 included 27 on the regular broadcast band and 20 FM stations. The State also had 18 television stations (16 commercial and 2 public), including satellites but excluding translators. Eight cable TV companies served 265,000 subscribers. An estimated 97 percent of all households in the State had television sets, and the average prime-time TV audience in May 1988 numbered 184,000 households. Island publishers printed nine daily newspapers, numerous magazines and other periodicals, and a wide diversity of books. Newspaper circulation reported by the two English-language dailies on Oahu averaged 191,000 in 1987-1988.

The major sources for statistics on communications are the reports and records of the U.S. Postal Service, Federal Communications Commission, the CATV Division of the Hawaii State Department of Commerce and Consumer Affairs, Hawaiian Telephone Company, Audit Bureau of Circulations, A. C. Nielsen Co., and *Hawaii Media Guide*. Earlier figures appear in *Historical Statistics of Hawaii*, Section 18. Data on communications for other states and for the nation as a whole are carried in *Statistical Abstract of the United States: 1988*, Section 18.

Table 472.-- POSTAL SERVICE: 1970 TO 1988

[For fiscal years ended June 30 through 1976 and
September 30 thereafter]

Fiscal year	Number, end of fiscal year 1/		Gross postal receipts ($1,000)	Pieces of mail 2/ (millions)
	Post offices	Stations		
1970	80	...	20,840	187
1971	80	...	21,976	201
1972	78	...	23,434	215
1973	77	...	27,100	226
1974	76	...	29,663	233
1975	76	...	33,549	238
1976	76	...	37,433	242
1977	76	...	43,790	249
1978	76	...	49,198	267
1979	76	...	55,267	276
1980	76	...	58,413	298
1981	76	...	67,055	293
1982	76	...	77,424	290
1983	76	3/ 50	89,943	305
1984	76	4/ 54	84,733	317
1985	76	64	94,975	339
1986	76	67	102,440	360
1987	75	69	107,946	394
1988	75	72	119,740	400

1/ Includes all 1st-, 2nd-, 3rd-, and 4th-class post offices and both classified and contract stations (classified stations are those staffed by career postal employees; contract stations, those operated under a contractual agreement between the Postal Service and an individual contractor). Station counts not available before 1983.

2/ Originating in Hawaii. Mail originating elsewhere is excluded.

3/ April 15.

4/ June 30.

Source: U.S. Postal Service, Honolulu Field Division, records.

Table 473.-- NUMBER OF POST OFFICES AND STATIONS, BY ISLANDS: OCTOBER 19, 1988

Island	Total	Post offices 1/			Stations	
		1st class	2nd class	3rd class	Classified 2/	Contract 3/
State total ..	147	35	25	15	32	40
Hawaii	36	10	10	7	2	7
Maui	17	8	2	-	1	6
Lanai	1	-	1	-	-	-
Molokai	5	1	-	4	-	-
Oahu	67	12	4	1	28	22
Kauai	21	4	8	3	1	5
Niihau	-	-	-	-	-	-

1/ There are no fourth-class post offices in the State.
2/ Staffed by career postal employees.
3/ Operated under a contractual agreement between the Postal Service and an individual contractor.

Source: U.S. Postal Service, Honolulu Field Division, data supplied October 19, 1988.

Table 474.-- RESIDENCES, POST OFFICE BOXES, AND BUSINESSES SERVED BY THE U.S. POSTAL SERVICE, BY ISLANDS: 1987

[As of September 15]

Subject	State total	Hawaii	Maui	Lanai	Molokai	Oahu	Kauai
Residences ...	310,529	23,743	23,282	-	165	257,465	5,874
P. O. boxes ..	93,974	26,307	13,966	876	1,703	37,098	14,024
Businesses ...	27,049	2,843	2,948	-	-	20,309	949

Source: U.S. Postal Service, San Mateo Postal Data Center, records.

Table 475.-- TELEPHONE ACCESS LINES, BY ISLAND AND TYPE: 1981 TO 1987

[As of December 31. Access lines represent the lines connecting customers to the network regardless of the ownership of the customer premises equipment. Business access includes key and coin system lines]

Year	All access lines	By island		By type		
		Oahu	Other islands	Residence	Business	Other types
1981	431,893	324,968	106,925	314,355	95,000	22,538
1982	445,452	334,150	111,302	323,588	98,691	23,173
1983	458,339	342,094	116,245	332,051	102,923	23,365
1984	472,229	348,936	123,293	339,296	107,830	25,103
1985	479,253	352,674	126,579	342,296	111,792	25,165
1986	493,079	362,083	130,996	350,790	118,002	24,287
1987	520,057	380,227	139,830	363,951	128,197	27,909

Source: Hawaiian Telephone Company, data provided April 14, 1988.

Table 476.-- TELEPHONES IN SERVICE AND RESIDENCE AND BUSINESS MAIN STATIONS: 1977 TO 1981

[As of December 31. Because of deregulation of the telephone industry, these series became subject to disclosure rules that precluded their publication after 1981]

Year	Telephones in service			Residence main stations	Business main stations
	State total	Oahu	Other islands		
1977	627,848	501,914	125,934	273,860	67,869
1978	659,141	523,472	135,669	285,948	71,892
1979	684,812	539,582	145,230	296,433	76,533
1980	712,095	555,790	156,305	303,928	79,565
1981	728,352	563,630	164,722	311,430	81,499

Source: Hawaiian Telephone Company, records; Hawaii State Department of Commerce and Consumer Affairs, Division of Consumer Advocacy, records.

Table 477.-- LOCAL TELEPHONE CALLS: 1977 TO 1987

[In thousands. The number of local calls is affected as central offices are being converted to Electronic Common Control (ECC). ECC records call attempts after the first digit is dialed. Non-ECC offices record the call attempts when the handset is lifted. Also significant in 1981 were an estimated 17 million fewer calls due to the implementation of Directory Assistance Charging. Because of these fundamental changes in data collection, more recent figures are not comparable to earlier years.]

Year	Originating	Completed	Year	Originating	Completed
1977	1,566,869	1,052,936	1983	1,928,486	1,446,365
1978	1,719,200	1,139,829	1984	2,050,778	1,538,084
1979	1,830,954	1,186,458	1985	2,225,943	1,669,457
1980	1,957,427	1,468,070	1986	2,350,538	1,671,223
1981	1,857,938	1,393,454	1987	2,404,035	1,718,885
1982	1,892,430	1,419,322			

Source: Hawaiian Telephone Company, records.

Table 478.-- HAWAIIAN TELEPHONE COMPANY OPERATIONS: 1985 TO 1987

Subject	1985	1986	1987
Operating revenues ($1,000)	421,143	440,198	458,361
Net income ($1,000)	49,025	53,001	55,091
Investment in telephone plant ($1,000) ..	1,263,585	1,295,424	1,369,130
Total assets ($1,000)	979,696	988,121	1,034,040
Invested capital ($1,000)	669,269	657,049	697,908
Access lines	478,546	491,973	517,937
Central offices	96	96	96
Miles of wire	3,116,120	3,273,924	3,365,412
Average daily local calls	6,141,405	6,435,932	6,614,688
Total salaries and wages ($1,000)	129,789	135,856	146,136
Number of employees	4,365	4,330	4,485

Source: 1987 Annual Report GTE Hawaiian Telephone, p. 21.

Table 479.-- TELEGRAPH MESSAGES: 1980 TO 1985

[After 1984, U.S. carriers were no longer required to report traffic for service between Hawaii and the Mainland, and statistics for later years are accordingly incomplete]

Year	Total messages	From Hawaii to Mainland			From Mainland to Hawaii		
		Total from Hawaii	Originated in Hawaii	Originated elsewhere	Total to Hawaii	Originated on Mainland	Originated elsewhere
1980 ..	222,410	120,785	43,543	77,242	101,625	46,564	55,061
1981 ..	196,350	106,248	34,432	71,816	90,102	37,924	52,178
1982 ..	168,501	88,325	27,951	60,374	80,176	31,227	48,949
1983 ..	145,990	71,428	21,739	49,689	74,562	21,777	52,785
1984 ..	112,440	47,765	15,061	32,704	64,675	16,024	48,651
1985 ..	(NA)	(NA)	6,208	(NA)	(NA)	6,265	(NA)

NA Not available.

Source: Federal Communications Commission, Common Carrier Bureau, records.

Table 480.-- CABLE TELEVISION COMPANIES, SUBSCRIBERS, AND REVENUES, BY COUNTIES: 1986 AND 1987

County	Number of companies Dec. 31 1/		Subscribers, Dec. 31		Basic service revenue ($1,000)	
	1986	1987	1986	1987	1986	1987
State total	9	8	231,335	265,029	33,761	39,114
Hawaii	4	3	20,188	23,059	3,356	3,718
Maui	2	2	18,545	21,401	2,996	3,805
Honolulu	2	2	182,736	195,438	25,455	29,350
Kauai	2	2	9,866	11,009	1,954	2,242

1/ State totals are unduplicated figures; one company provided service to both Hawaii and Maui Counties.

Source: Hawaii State Department of Commerce and Consumer Affairs, Cable Television Division, records.

Table 481.-- RADIO AND TELEVISION BROADCASTING STATIONS IN OPERATION, 1928 TO 1988, AND BY COUNTIES, 1988

Date and county	Commercial stations			Non-commercial stations		
	AM	FM	TV 1/	AM	FM	TV 1/
1928: Jan. 1	2	-	-	-	-	-
1943: Jan. 1	4	-	-	-	-	-
1958: Jan. 1	15	1	7	-	2	-
1973: Jan. 1	24	5	10	-	1	2
1988: June 30	27	18	16	-	2	2
COUNTIES: 1988						
Hawaii	4	4	5	-	-	-
Maui	3	6	3	-	-	1
Honolulu 2/	18	7	8	-	2	1
Kauai	2	1	-	-	-	-

1/ Includes satellites but excludes translators and cable television.

2/ Includes one commercial AM station with studio on Oahu but transmitter on Molokai.

Source: Robert C. Schmitt, Historical Statistics of Hawaii (University Press of Hawaii, 1977), p. 482; Federal Communications Commission, Field Operations Bureau, Honolulu, July 13, 1988.

Table 482.-- TELEVISION HOUSEHOLDS, BY GEOGRAPHIC AREA: 1987 AND 1988

Subject	January 1987			January 1988		
	State total	Oahu	Other islands	State total	Oahu	Other islands
All households	340,900	260,900	80,000	343,300	261,900	81,400
With television .	330,080	253,800	76,280	333,380	255,460	77,920
Percent	96.8	97.3	95.4	97.1	97.5	95.7

Source: Nielsen Station Index, Honolulu, Hawaii, February 1987 and February 1988, table 1.

Table 483.-- HOUSEHOLDS AND PERSONS VIEWING TELEVISION BY TIME OF DAY: 1986 TO 1988

[In thousands. Mean number of viewers, Sunday through Saturday]

Year and month	Sign-on to sign-off 7 A.M. to 1 A.M.		Prime time 6:30 P.M. to 10 P.M.	
	Households 1/	Persons 2/	Households 1/	Persons 2/
1986: Feb.	91	158	194	377
May	88	144	179	331
Nov.	95	154	193	355
1987: Feb.	93	158	200	386
May	90	152	182	351
Nov.	87	141	184	335
1988: Feb.	90	150	198	374
May	88	145	184	345

1/ Average number with a TV set turned on.

2/ Average number of persons, 2 years and older, in TV households that are viewing any station.

Source: Nielsen Station Index, Honolulu, Hawaii, issued three times annually.

Table 484.-- COMMUNICATION AND COMMUNICATION-RELATED ESTABLISHMENTS: 1986

SIC code	Industry	No. of establishments	SIC code	Industry	No. of establishments
27	Printing and publishing	168	482	Telegraph communic. ...	4
271	Newspapers	21	483	Radio, TV broadcast. ..	41
272	Periodicals	16	489	Commun. services, n.e.c	29
273	Books	9	731	Advertising	59
274	Miscell. publishing .	8	7311	Advertising agencies	45
481	Telephone communic. ...	19			

Source: U.S. Bureau of the Census, County Business Patterns 1986, Hawaii, CBP-86-13 (August 1988), pp. 4-9.

Table 485.-- AVERAGE PAID CIRCULATION OF DAILY AND SUNDAY ENGLISH-LANGUAGE NEWSPAPERS: 1984-85 TO 1987-88

[Averages for 12-month periods ended in March. Foreign-language daily newspapers, not included in this table, are the Hawaii Hochi, Japanese and English; The Korea Times and Han Kook Ilbo, Korean; and United Chinese Press, Chinese]

Newspaper	1984-85	1985-86	1986-87	1987-88
Daily:				
Honolulu Advertiser 1/	86,998	84,782	88,551	93,088
Honolulu Star-Bulletin 2/	110,045	102,734	99,724	97,950
Hawaii Tribune-Herald (Hilo) 3/	19,868	19,946	20,290	20,328
West Hawaii Today (Kailua-Kona) 4/ ..	7,138	7,680	8,298	8,820
Maui News (Wailuku) 3/	15,983	15,506	15,199	15,805
Garden Island (Lihue) 5/	9,550	9,479	9,500	9,525
Sunday morning:				
Sunday Star-Bulletin and Advertiser .	198,184	195,344	199,684	203,358
Hawaii Tribune-Herald (Hilo)	22,605	22,663	22,944	23,209
West Hawaii Today (Kailua-Kona) 6/ ..	6,626	7,431	8,273	8,961
Maui News (Wailuku) 7/	14,668	14,684	15,117	16,326
Garden Island (Lihue) 8/	8,900	8,884	9,300	9,528

1/ Mornings, Monday through Saturday.
2/ Afternoons, Monday through Saturday.
3/ Afternoons, Monday through Friday.
4/ Mornings, Monday through Friday.
5/ Afternoons, 4 times weekly (Monday, Wednesday, Thursday, and Friday).
6/ Beginning April 29, 1984.
7/ Beginning September 1984.
8/ Beginning July 1, 1984.

Source: Audit Bureau of Circulations data provided to DBED by newspaper publishers.

Table 486.-- PERIODICALS PUBLISHED IN HAWAII: 1985

Frequency	Newspapers		Magazines and other periodicals 1/
	English	Foreign language	
Daily, 5 to 7 times weekly 2/	6	3	-
2 to 4 times weekly	-	-	1
Weekly	9	1	15
Semi-monthly or biweekly	3	3	18
Monthly	2	-	53
1 to 10 times annually	-	-	40

1/ Includes regularly published magazines, company and in-house publications, labor publications, educational publications, military and federal publications, and special interest publications. Does not include publications that are updated as required, or other irregular publications.

2/ For more recent data, see table 485.

Source: Aloha United Way, Hawaii Media Guide, April 1985.

Table 487.-- BOOKS AND SCHOLARLY JOURNALS PUBLISHED BY THE UNIVERSITY OF HAWAII PRESS: 1986 TO 1988

Year	Published titles 1/		New books and journals published 2/		Volumes sold 2/	Book sales revenues 2/ (dollars)
	Cumulative total	In print	Books	Scholarly journals		
1986	783	610	38	8	270,676	1,435,196
1987	826	643	43	8	279,017	1,497,901
1988	868	672	42	6	324,185	1,962,537

1/ As of June 30. Excludes journals.

2/ Year ended June 30.

Source: The University of Hawaii Press, Annual Report (annual) and records.

Table 488.-- POSTAGE RATES AND NEWSPAPER PRICES, FOR HONOLULU: 1978 TO 1988

[In cents. As of July 1]

Year	Domestic first-class postage rates			Newspaper price 1/	
	Letters		Postal and post cards		
	First ounce	Each added ounce		Daily	Sunday
1978	15	13	10	20	50
1979	15	13	10	25	60
1980	15	13	10	25	60
1981	18	17	12	25	75
1982	20	17	13	25	100
1983	20	17	13	25	100
1984	20	17	13	25	100
1985	22	17	14	35	100
1986	22	17	14	35	100
1987	22	17	14	35	100
1988	25	20	15	35	125

1/ Street sales, for the Honolulu Advertiser, Honolulu Star-Bulletin, and Sunday Star-Bulletin and Advertiser.

Source: Postal rates from Statistical Abstract of the United States: 1988, p. 522, as updated. Newspaper rates from nameplates.

Table 489.-- HAWAIIAN TELEPHONE COMPANY RATES FOR SPECIFIED TYPES OF SERVICE, FOR HONOLULU: 1978 TO 1988

[In dollars. As of July 1. Including state and federal excise tax where applicable]

Year	Local call, pay phone	Honolulu to Hilo		Honolulu to California		Monthly charge, indiv. res. line 3/
		Direct dialing 1/	Through operator 2/	Direct dialing 1/	Through operator 2/	
1978 ..	0.15	0.94	0.94	1.84	2.81	11.86
1979 ..	0.15	0.90	0.90	1.61	2.55	11.74
1980 ..	0.15	1.06	1.89	1.64	2.60	11.63
1981 ..	0.15	1.06	1.89	1.64	2.60	11.63
1982 ..	0.15	1.05	1.87	1.74	2.63	11.51
1983 ..	0.15	1.07	1.91	1.77	3.37	11.31
1984 ..	0.15	1.07	1.91	1.66	3.25	11.74
1985 ..	0.15	1.14	2.06	1.54	3.13	12.77
1986 4/	0.25	1.45	2.06	1.32	2.91	14.10
1987 4/	0.25	1.11	2.00	0.98	2.53	14.10
1988 4/	0.25	1.04	2.00	0.92	2.47	14.10

1/ Daytime calls, first three minutes.

2/ Station-to-station operator-handled daytime weekday calls, first three minutes.

3/ Telephone rental included through February 5, 1983, and excluded thereafter. In 1988, the monthly rental charge for a standard dial desk-top telephone was $2.15, and the federal subscriber line charge was $2.60.

4/ AT&T Communications, Inc., rates quoted for Honolulu to California calls.

Source: Hawaiian Telephone Company, records, and AT&T Communications, Inc., records.

Section 17

ENERGY AND SCIENCE

This section presents statistics on energy production and consumption, the electric and gas utility industries, research and development, and scientific resources. Related series are cited in Sections 12 (on utility employment), 14 (prices), and 18 (gasoline consumption).

Total energy consumption in 1985 amounted to 231 trillion British thermal units, compared with 219 trillion BTU a decade earlier. Transportation, including aviation fuels, accounted for 56 percent of the 1986 total. Total expenditures for fuels and electricity in 1986 were $1.56 billion.

Electricity sales amounted to 7.3 billion kilowatt-hours in 1987, a total that has increased 25 percent since 1977. Manufactured gas sales reached 32 million therms in 1987, 7 percent below the figure ten years earlier. Residential rates in 1987 averaged 9.4 cents per kilowatt-hour and $1.57 per therm, both almost double the corresponding rates a decade earlier. Average residential use (6,905 kWh and 195 therms in 1987) has declined since the early 1970s. By 1986, almost 11 percent of the housing units in the State had solar heating devices.

The liquid fuel tax base for 1987 was approximately 1.2 billion gallons, compared with 888 million in 1977. The 1987 total included 348 million gallons of gasoline, 694 million of aviation fuel, and 159 million of diesel oil. The average price for automotive gasoline was $1.28 per gallon during the first half of 1988.

The State is well served with scientific resources. Especially noteworthy is the cluster of large telescopes used for astronomical observations at the summits of Mauna Kea and Haleakala--twelve major facilities, including those under construction. Federal research and development obligations in Hawaii totaled $55 million in 1986. Fifty-two patents were granted to Hawaii residents in 1987.

Information on energy and science can be obtained from reports and records of the U.S. Department of Energy, U.S. Patent and Trademark Office, U.S. Bureau of Labor Statistics, National Science Foundation, Hawaii State Department of Taxation, Hawaii State Department of Commerce and Consumer Affairs and its Division of Consumer Advocacy, the DBED Energy Division, UH Institute for Astronomy, and individual utility companies. Historical Statistics of Hawaii, Section 19, presents data for earlier years. Data for the nation as a whole can be found in the Statistical Abstract of the United States: 1988, Sections 19 and 20.

Table 490.-- CONSUMPTION OF ENERGY, BY SOURCE (PHYSICAL UNITS): 1960 TO 1986

Year	Petroleum 1/ (1,000 barrels)	Hydro-electric power 2/ (million kWh)	Geothermal energy (million kWh)	Coal (1,000 short tons)	Other 3/ (million kWh)
1960	17,497	27	0	0	0
1961	20,721	24	0	0	0
1962	19,733	20	0	0	0
1963	20,705	23	0	0	0
1964	22,117	115	0	0	0
1965	23,177	105	0	0	0
1966	25,804	112	0	0	2
1967	29,081	108	0	0	0
1968	32,363	94	0	0	30
1969	33,815	100	0		29
1970	34,768	108	0	0	24
1971	37,416	89	0	0	15
1972	38,372	91	0	0	18
1973	39,339	95	0	0	22
1974	37,265	92	0	0	30
1975	37,588	89	0	0	25
1976	37,990	93	0	0	29
1977	40,249	86	0	0	26
1978	40,851	84	0	0	0
1979	44,594	90	0	0	0
1980	43,505	86	0	0	0
1981	38,721	80	0	0	15
1982	35,637	90	0	47	26
1983	36,297	84	0	42	28
1984	36,932	82	21	38	28
1985	39,351	86	19	46	25
1986	38,905	78	18	16	0

1/ For data by type of petroleum, see source. Series revised from Data Book 1987, table 490.

2/ Includes industrial and electric utility production.

3/ Wood, waste, wind, photovoltaic, and solar thermal energy sources consumed at electric utilities to produce electricity. Excludes natural gas and nuclear electric power.

Source: U.S. Department of Energy, Energy Information Administration, State Energy Data Report, Consumption Estimates, 1960-1986 (April 1988), p. 93.

Table 491.-- CONSUMPTION OF ENERGY, BY SOURCE (TRILLION BTU): 1960 TO 1986

[Revised from Data Book 1987, table 491]

Year	Total energy consumed 1/	Petroleum 2/	Hydroelectric power 3/	Geothermal energy	Coal	Natural gas	Other types 4/
1960	98.4	98.1	0.3	0.0	0.0	0.0	0.0
1961	117.3	117.0	0.3	0.0	0.0	0.0	0.0
1962	112.2	112.0	0.2	0.0	0.0	0.0	0.0
1963	118.3	118.0	0.2	0.0	0.0	0.0	0.0
1964	127.9	126.7	1.2	0.0	0.0	0.0	0.0
1965	134.2	133.1	1.1	0.0	0.0	0.0	0.0
1966	149.1	147.9	1.2	0.0	0.0	0.0	(Z)
1967	168.1	167.0	1.1	0.0	0.0	0.0	0.0
1968	187.3	186.0	1.0	0.0	0.0	0.0	0.3
1969	194.8	193.5	1.0	0.0	0.0	0.0	0.3
1970	200.4	199.0	1.1	0.0	0.0	0.0	0.3
1971	215.1	214.0	0.9	0.0	0.0	0.0	0.2
1972	221.0	219.9	0.9	0.0	0.0	0.0	0.2
1973	226.7	225.5	1.0	0.0	0.0	0.0	0.2
1974	214.6	213.3	1.0	0.0	0.0	0.0	0.3
1975	216.7	215.5	0.9	0.0	0.0	0.0	0.3
1976	219.3	218.0	1.0	0.0	0.0	0.0	0.3
1977	232.6	231.5	0.9	0.0	0.0	0.0	0.3
1978	236.0	235.2	0.9	0.0	0.0	0.0	0.0
1979	255.9	255.0	0.9	0.0	0.0	0.0	0.0
1980	253.2	249.3	0.9	0.0	0.0	3.0	0.0
1981	226.4	222.6	0.8	0.0	0.0	2.8	0.2
1982	208.5	203.3	0.9	0.0	1.1	2.8	0.3
1983	210.3	205.4	0.9	0.0	1.0	2.7	0.3
1984	218.7	213.8	0.8	0.4	0.9	2.4	0.3
1985	233.3	227.9	0.9	0.4	1.1	2.7	0.3
1986	230.9	226.7	0.8	0.4	0.4	2.7	0.0

Z Less than 0.05.

1/ Totals may not equal sum of components due to independent rounding.

2/ For data by type of petroleum, see source.

3/ Includes industrial and electric utility production.

4/ Wood, waste, wind, photovoltaic, and solar thermal energy sources consumed at electric utilities to produce electricity.

Source: U.S. Department of Energy, Energy Information Administration, State Energy Data Report, Consumption Estimates, 1960-1986 (April 1988), p. 93.

Table 492.-- CONSUMPTION OF ENERGY BY END-USE SECTOR: 1960 TO 1986

[Trillion Btu. Revised from Data Book 1987, table 492]

Year	Consumption 1/				Input at electric utilities
	Residential	Commercial	Industrial	Transportation	
1960	7.3	5.2	20.7	65.2	17.6
1961	7.5	5.4	26.9	77.4	19.4
1962	8.0	5.5	28.9	69.8	21.4
1963	8.9	6.0	29.8	73.5	24.2
1964	9.6	6.6	32.4	79.2	26.7
1965	10.1	6.8	34.7	82.6	27.6
1966	10.8	7.4	35.8	95.1	29.7
1967	12.1	8.0	38.9	109.1	31.3
1968	13.1	8.8	38.7	126.7	35.0
1969	14.9	9.8	40.9	129.2	38.7
1970	16.4	11.6	43.7	128.7	43.2
1971	17.8	11.4	43.6	142.3	47.7
1972	19.6	12.7	48.9	139.7	54.1
1973	20.0	13.5	49.4	143.8	55.6
1974	20.3	13.3	49.4	131.7	57.5
1975	19.6	13.8	49.9	133.4	58.8
1976	21.3	15.3	57.0	131.7	62.5
1977	21.8	16.8	52.7	141.3	65.2
1978	21.8	17.4	52.3	144.6	66.8
1979	22.9	18.1	58.5	156.3	67.7
1980	23.2	20.8	62.4	146.7	69.7
1981	23.0	18.8	60.7	124.0	69.9
1982	21.5	17.6	67.2	102.2	66.9
1983	22.1	17.8	52.6	117.9	68.6
1984	21.0	18.6	47.5	131.7	70.6
1985	20.8	19.3	48.3	144.8	70.0
1986	20.7	23.1	57.7	129.4	72.9

1/ Excludes small quantities of energy sources for which consistent historical data are not available, such as solar energy obtained by the use of thermal and photovoltaic collectors; wind energy; and geothermal, biomass, and waste energy other than that consumed at the electric utilities.

Source: U.S. Department of Energy, Energy Information Administration, State Energy Data Report, Consumption Estimates, 1960-1986 (April 1988), pp. 94-98.

Table 493.-- PRIMARY ENERGY USE, BY SOURCE: 1981 TO 1987

[Thousands of barrels of oil equivalent. Revised from Data Book 1987, table 493]

Year	All sources	Petroleum	Biomass	Solar water heating	Hydro electricity	Coal	Geothermal	Wind
1981	46,262	42,879	2,791	178	117	297	-	-
1982	46,107	42,510	2,980	216	174	202	25	-
1983	47,250	43,616	3,069	243	141	151	30	-
1984	46,925	43,233	3,119	281	124	135	33	-
1985	45,417	41,786	3,021	339	156	58	30	27
1986	46,869	42,341	3,812	344	168	79	29	96
1987	49,023	44,837	3,529	349	154	-	23	131

Source: Hawaii State Department of Commerce and Consumer Affairs, records; Hawaii State Department of Business and Economic Development, records; Hawaiian Sugar Planters' Association, records.

Table 494.-- ELECTRICITY GENERATION BY SOURCE: 1981 TO 1987

[Millions of kWh generated]

Year	Total	Petroleum	Biomass	Hydroelectric	Geothermal	Wind	Coal
1981	7,615	6,913	628	74	-	-	-
1982	7,467	6,729	612	110	16	-	-
1983	7,689	6,914	667	89	19	-	-
1984	7,841	7,073	669	78	21	-	-
1985	7,821	7,001	670	98	19	17	16
1986 1/ .	8,251	7,412	646	100	18	58	17
1987 2/ .	8,368	7,577	605	93	14	79	-

1/ Revised.

2/ Preliminary.

Source: Hawaii State Department of Commerce and Consumer Affairs, records; Hawaii State Department of Business and Economic Development, records; Hawaiian Sugar Planters' Association, records.

Table 495.-- EXPENDITURES FOR FUELS AND ELECTRICITY, BY SOURCE: 1970 TO 1986

[Millions of dollars]

Year	Total energy expend.	Fuel expenditures			Less: electric utility fuel expend.	Plus: electric purch. by end-user
		Total	Electric utility	Other		
1970	282.7	215.9	17.3	198.6	17.3	84.1
1971	320.8	246.8	24.8	222	24.8	98.8
1972	332.4	250.4	27.3	223.1	27.3	109.3
1973	391.1	300.9	36.3	264.6	36.3	126.5
1974	534.5	433.2	49.8	383.4	49.8	151.1
1975	669.9	546.1	91.9	454.2	91.9	215.7
1976	735.6	600	100.4	499.6	100.4	236
1977	844.5	696.5	123.5	573	123.5	271.5
1978	932.2	767.8	149.3	618.5	149.3	313.7
1979	1,261.3	1,083.7	177	906.7	177	354.6
1980	1,721.3	1,529.8	267.8	1,262	267.8	459.3
1981	2,195.2	1,947.7	451.5	1,496.2	451.5	699
1982	2,153.8	1,869.6	439.4	1,430.2	439.4	723.6
1983	2,019.9	1,730.1	369.3	1,360.8	369.3	659.1
1984	2,048.4	1,724.8	379.3	1,345.5	379.3	702.9
1985	1,921.6	1,586.6	337.6	1,249.0	337.6	672.6
1986 1/ .	1,564.0	1,147.3	224.6	922.7	224.6	641.3

1/ Provisional.

Source: Hawaii State Department of Business and Economic Development, Division of Energy, unpublished estimates.

Table 496.-- EXPENDITURES FOR FUELS AND ELECTRICITY, BY SECTORS: 1970 TO 1986

[Millions of dollars]

Year	Total fuel	Residential		Commercial and industrial		Trans-port: fuel	Electric utilities: fuel
		Fuel	Elect.	Fuel	Elect.		
1970	215.9	5.5	34.1	18.9	50	174.2	17.3
1971	246.8	8.7	38.8	17.9	60	195.4	24.8
1972	250.4	6.1	42.6	20.5	66.7	196.5	27.3
1973	300.9	10.5	48.7	24.4	77.8	229.7	36.3
1974	443.2	10.4	57.1	44.7	94	328.3	49.8
1975	546.1	7.4	76.9	45.8	138.8	401	91.9
1976	600	12.7	84	45.9	152	441	100.4
1977	696.5	13.9	92.9	55	178.6	504.1	123.5
1978	767.8	13.3	105.8	52.6	207.9	552.6	149.3
1979	1,083.7	26.2	118.9	102.4	235.7	778.1	177
1980	1,529.8	19.5	146.4	135.4	312.9	1,107.1	267.8
1981	1,947.7	20.6	214.6	232.4	484.4	1,243.2	451.5
1982	1,869.6	26.2	222.4	283.6	501.2	1,120.4	439.4
1983	1,730.1	22.9	205.9	288.1	453.2	1,049.8	369.3
1984	1,724.8	20.6	217.4	192.1	485.5	1,132.8	379.3
1985 1/ ..	1,586.6	20.6	213.5	100.8	459.1	1,127.6	337.6
1986 2/ ..	1,147.3	13.8	195.8	65.8	445.6	843.1	224.6

1/ Revised from Data Book 1986, table 471.
2/ Preliminary.
Source: Hawaii State Department of Business and Economic Development, Division of Energy, unpublished estimates.

Table 497.-- ELECTRIC UTILITIES: 1977 TO 1987

Year	Customers, Dec. 31			Installed capacity, Dec. 31 (kW)	Power sold (1,000 kWh)		
	Total	Residential	Other		Total	Residential	Other
1977 ..	275,616	237,557	38,059	1,481,680	5,831,610	1,779,314	4,052,296
1978 ..	284,064	244,863	39,201	1,487,490	6,004,891	1,799,024	4,205,867
1979 ..	293,061	252,898	40,163	1,502,840	6,197,426	1,851,457	4,345,969
1980 ..	301,544	260,358	41,186	1,514,180	6,345,531	1,852,984	4,492,547
1981 ..	305,927	265,042	40,885	1,652,380	6,424,016	1,855,837	4,568,179
1982 ..	313,009	270,712	42,297	1,644,980	6,332,707	1,801,297	4,531,410
1983 ..	319,449	276,194	43,255	1,578,780	6,425,578	1,814,336	4,611,242
1984 ..	324,384	280,518	43,866	1,578,780	6,606,255	1,837,954	4,768,301
1985 ..	330,407	285,117	45,290	1,567,230	6,635,158	1,879,027	4,756,131
1986 ..	337,563	291,222	46,341	1,553,580	7,025,739	1,959,447	5,066,292
1987 ..	347,085	299,758	47,327	1,535,700	7,297,905	2,069,859	5,228,046

Year	Average annual use (kWh) 1/		Average rate (dollars per kWh)		Revenues ($1,000)		
	Residential	Other	Residential	Other	Total	Residential	Other
1977 ..	7,490	106,474	.05222	.04408	271,553	92,917	178,636
1978 ..	7,347	107,290	.05883	.04943	313,722	105,846	207,876
1979 ..	7,321	108,208	.06420	.05424	354,595	118,862	235,733
1980 ..	7,117	109,079	.07901	.06964	459,251	146,397	312,854
1981 ..	7,002	111,732	.11563	.10605	699,031	214,584	484,447
1982 ..	6,654	107,133	.12348	.11061	723,622	222,423	501,199
1983 ..	6,569	106,606	.11348	.09828	659,089	205,889	453,200
1984 ..	6,552	108,702	.11831	.10181	702,899	217,447	485,452
1985 ..	6,590	105,015	.11361	.09653	672,600	213,478	459,122
1986 ..	6,728	109,326	.09294	.07505	562,345	182,110	380,234
1987 ..	6,905	110,466	.09431	.07792	602,553	195,198	407,355

1/ Based on number of customers at end of year.

Source: Hawaii State Department of Commerce and Consumer Affairs, Division of Consumer Advocacy, records.

Table 498.-- ELECTRIC UTILITIES, BY ISLANDS: 1987

County or island	Customers, Dec. 31			Installed capacity, Dec. 31 (kW)	Power sold (1,000 kWh)		
	Total	Resi-dential	Other		Total	Resi-dential	Other
State total	347,085	299,758	47,327	1,535,700	7,297,905	2,069,859	5,228,046
Oahu	241,426	211,277	30,149	1,255,000	5,804,298	1,526,611	4,277,687
Hawaii	44,137	36,685	7,452	101,000	572,628	229,716	342,912
Kauai	20,945	17,604	3,341	59,800	270,164	96,795	173,369
Maui County	40,577	34,192	6,385	119,900	650,815	216,737	434,078
Lanai	884	765	119	-	5,662	3,439	2,223
Maui	37,088	31,291	5,797	108,700	619,763	202,704	417,059
Molokai	2,605	2,136	469	11,200	25,390	10,594	14,796

County or island	Average annual use (kWh) 1/		Average rate (dollars per kWh)		Revenues ($1,000)		
	Resi-dential	Other	Resi-dential	Other	Total	Resi-dential	Other
State total	6,905	110,466	0.09431	0.07792	602,553	195,198	407,355
Oahu	7,226	141,885	0.08591	0.07077	433,891	131,158	302,733
Hawaii	6,262	46,016	0.11871	0.10905	64,664	27,269	37,395
Kauai	5,498	51,891	0.12630	0.12681	34,211	12,226	21,985
Maui County	6,339	67,984	0.11325	0.10422	69,787	24,546	45,241
Lanai	4,495	18,686	0.17121	0.16664	959	589	370
Maui	6,478	71,944	0.10819	0.10058	63,878	21,931	41,948
Molokai	4,960	31,547	0.19127	0.19758	4,950	2,026	2,923

1/ Based on number of customers at end of year.

Source: Hawaii State Department of Commerce and Consumer Affairs, Division of Consumer Advocacy, records.

Table 499.-- GAS UTILITIES: 1977 TO 1987

[Excludes bottled gas]

Year	Customers, Dec. 31			Gas sold (1,000 therms)		
	Total	Residential	Other	Total	Residential	Other
1977 ...	33,722	29,408	4,314	34,844	7,612	27,232
1978 ...	33,413	29,091	4,322	34,919	7,388	27,532
1979 ...	33,309	29,014	4,295	35,264	7,326	27,937
1980 ...	33,019	28,825	4,194	34,705	7,030	27,675
1981 ...	32,421	28,343	4,078	32,396	6,422	25,975
1982 ...	32,905	28,979	3,926	32,224	6,329	25,895
1983 ...	32,880	28,933	3,947	31,307	6,338	24,970
1984 ...	32,643	28,859	3,784	30,928	5,853	25,075
1985 ...	32,988	29,253	3,735	31,203	5,911	25,292
1986 ...	33,369	29,678	3,691	31,122	5,762	25,360
1987 ...	33,895	30,198	3,697	32,408	5,880	26,528

Year	Average annual use (therms) 1/		Average rate (dollars per therm)		Revenues ($1,000)		
	Residential	Other	Residential	Other	Total	Residential	Other
1977 ...	259	6,313	.85883	.65821	24,462	6,537	17,925
1978 ...	254	6,370	.91647	.71792	26,536	6,770	19,766
1979 ...	253	6,505	1.09260	.89221	32,931	8,006	24,925
1980 ...	244	6,599	1.46583	1.25951	45,162	10,305	34,857
1981 ...	227	6,369	1.72585	1.50091	50,069	11,083	38,986
1982 ...	218	6,596	1.73311	1.43891	48,229	10,969	37,260
1983 ...	219	6,326	1.79719	1.44022	47,352	11,390	35,962
1984 ...	203	6,627	1.78958	1.37488	44,949	10,474	34,475
1985 ...	202	6,772	1.76934	1.33821	44,305	10,459	33,846
1986 ...	194	6,871	1.57151	1.12027	37,465	9,055	28,410
1987 ...	195	7,176	1.57204	1.10494	38,556	9,244	29,312

1/ Based on number of customers at end of year.

Source: Hawaii State Department of Commerce and Consumer Affairs, Division of Consumer Advocacy, records.

Table 500.-- GAS UTILITIES, BY ISLANDS: 1987

[Excludes bottled gas]

Island	Customers, Dec. 31			Gas sold (therms)		
	Total	Residential	Other	Total	Residential	Other
State total	33,895	30,198	3,697	32,408,238	5,880,067	26,528,171
Oahu	31,398	28,069	3,329	29,344,841	5,435,022	23,909,819
Hawaii	1,860	1,553	307	2,184,803	333,038	1,851,765
Kauai	273	273	-	56,852	56,852	-
Maui	364	303	61	821,742	55,155	766,587
Molokai	-	-	-	-	-	-
Lanai	-	-	-	-	-	-

Island	Average annual use (therms) 1/		Average rate (dollars per (therm)		Revenues ($1,000)		
	Residential	Other	Residential	Other	Total	Residential	Other
State total	195	7,176	1.57204	1.10494	38,556	9,244	29,312
Oahu	194	7,182	1.59606	1.12312	35,528	8,675	26,854
Hawaii	214	6,032	1.27110	0.95426	2,190	423	1,767
Kauai	208	-	1.31893	-	75	75	-
Maui	182	12,567	1.28333	0.90161	762	71	691
Molokai	-	-	-	-	-	-	-
Lanai	-	-	-	-	-	-	-

1/ Based on number of customers at end of year.

Source: Hawaii State Department of Commerce and Consumer Affairs, Division of Consumer Advocacy, records.

Table 501.-- SERVICE PROVIDED BY HAWAIIAN ELECTRIC CO., INC., ON OAHU: 1982 TO 1987

Year	Number of customers, Dec. 31		Net input 1/ (1,000 kWh)	Power sold (1,000 kWh)	Average annual residential use 2/ (kWh)	Average residential rate (dollars per kWh)	Installed capacity 3/ (kW) Dec. 31
	Total	Residential only					
1982 ..	222,636	194,468	5,441,941	5,164,332	7,068	0.12066	1,255,600
1983 ..	226,070	197,400	5,546,600	5,230,658	7,030	0.10631	1,200,000
1984 ..	228,606	199,722	5,633,940	5,330,931	6,960	0.11032	1,188,600
1985 ..	231,912	202,222	5,637,678	5,336,262	6,997	0.10417	1,188,600
1986 ..	235,742	205,636	5,933,569	5,625,398	7,113	0.08328	1,188,600
1987 ..	241,426	211,277	6,135,382	5,804,298	7,322	0.08591	1,188,600

1/ Net generated plus purchased power.
2/ Based on average number of customers during the year.
3/ Maximum generator nameplate. 1984 and 1985 data are revisions.
Source: Hawaiian Electric Co., Inc., records.

Table 502.-- GAS UTILITY SERVICE BY GASCO, INC., FOR OAHU: 1982 TO 1987

Calendar year	Customers, Dec. 31		Gas sold 1/ (1,000 therms)		Average annual residential usage 1/ (therms)
	Total	Residential	Total	Residential	
1982 ...	30,221	26,665	29,307	5,765	216
1983 ...	30,305	26,674	28,795	5,849	219
1984 ...	30,041	26,636	28,190	5,389	202
1985 ...	30,442	27,085	28,255	5,436	201
1986 ...	30,831	27,516	28,137	5,318	193
1987 ...	31,398	28,069	29,345	5,435	194

1/ Includes liquefied petroleum gas.
Source: Gasco, Inc., records.

Table 503.-- LIQUID FUEL TAX BASE: 1977 TO 1987

[In thousands of gallons]

Year reported 1/	All types		Gasoline	Diesel oil	
	Total	Excluding aviation		Non-hwy.	Hwy. use
1977	888,136	415,482	311,409	85,484	13,817
1978	917,380	444,110	324,702	99,755	15,233
1979	960,837	454,012	324,337	108,460	16,596
1980	939,766	437,222	312,896	101,719	17,765
1981	918,437	428,886	305,886	101,212	15,771
1982	893,288	418,811	308,600	88,312	17,303
1983	919,865	418,217	310,085	86,790	16,440
1984	925,871	440,061	322,410	95,956	17,892
1985	970,555	432,500	327,021	83,147	17,636
1986	1,059,180	456,013	336,559	95,022	19,354
1987	1,206,716	512,974	348,474	137,806	21,207

Year reported 1/	Liquefied petroleum gas		Aviation fuel	Small boats	
	Off-hwy.	Hwy. use		Gasoline	Diesel oil
1977	2,036	1,280	472,654	558	899
1978	1,821	1,216	473,270	445	938
1979	2,213	1,140	506,825	410	856
1980	2,448	1,140	502,544	338	917
1981	2,378	1,136	489,551	424	2,079
1982	2,628	960	474,477	207	802
1983	3,013	1,052	501,648	213	624
1984	2,600	873	485,810	114	215
1985	2,804	1,028	538,055	187	676
1986	2,969	1,031	603,167	163	916
1987	3,135	1,142	693,742	123	1,089

1/ Liquid fuel sold in a given month is usually reported the following month. Annual totals accordingly refer to fuel sold during a 12-month period ended November 30.

Source: Hawaii State Department of Taxation, "Liquid Fuel Tax Base, Collections and Distribution" (annual report).

Table 504.-- LIQUID FUEL TAX BASE, BY COUNTIES: 1987

[In thousands of gallons]

Type of fuel	State total	City and Co. of Honolulu	County of Maui	County of Hawaii	County of Kauai
Total	1,206,716	993,073	93,989	76,6[illegible]7	43,007
Gasoline	348,474	240,716	39,883	46,498	21,378
Diesel oil, non-hwy. ...	137,806	67,788	33,812	15,696	20,509
Diesel oil, hwy. use ...	21,207	15,643	1,777	3,195	592
Liq. pet. gas, off hwy.	3,135	1,901	432	652	149
Liq. pet. gas, hwy. use	1,142	949	75	88	30
Small boats, gasoline ..	123	66	-	57	-
Small boats, diesel oil	1,089	186	-	903	-
Aviation fuel	693,742	665,825	18,010	9,557	350

Source: Hawaii State Department of Taxation, "Liquid Fuel Tax Base, Collections and Distribution, Calendar Year Ending December 31, 1987" (annual release).

Table 505.-- GASOLINE SERVICE STATIONS (SIC 554) WITH PAYROLL, BY COUNTIES: 1982 TO 1986

Year	State total	City and Co. of Honolulu	Hawaii County	Kauai County	Maui County
1982	365	252	59	21	33
1983	379	267	59	25	28
1984	359	251	51	26	31
1985	349	244	50	26	29
1986	345	243	49	25	28

Source: U.S. Bureau of the Census, County Business Patterns, Hawaii (annual).

Table 506.-- GASOLINE AVERAGE PRICES PER GALLON, FOR OAHU: 1985 TO 1988

[In dollars. Average prices include all applicable federal, state, and county taxes. For earlier years, 1903-1984, see Data Book 1984, tables 497 and 498, and Data Book 1987, table 507]

Period	All types 1/	Leaded regular	Unleaded regular	Leaded premium
1985: First half ...	1.366	1.246	1.366	(NA)
Second half ..	1.418	1.302	1.426	(NA)
1986: First half ...	1.293	1.160	1.308	2/ 1.409
Second half ..	1.120	0.993	1.134	1.282
1987: First half ...	1.168	1.041	1.187	1.312
Second half ..	1.297	1.158	1.320	1.435
1988: First half ...	3/ 1.278	1.143	1.302	1.410

NA Not available.
1/ Includes types not shown separately.
2/ Includes DBED estimate for January 1986.
3/ The U.S. city average for the first half of 1988 was $0.947.

Source: 1985 and 1986 (and 1988 U.S. average) from U.S. Bureau of Labor Statistics, CPI Detailed Report (monthly). Honolulu data after 1986 based on changes in CPI-U for gasoline applied to absolute values for the last half of 1986.

Table 507.-- BOILERS AND PRESSURE VESSELS: 1986 AND 1987

Date	Total	Power boilers	Heating boilers	Pressure vessels
1986: Dec. 31 ...	8,561	588	2,533	5,440
1987: Dec. 31 ...	8,517	585	2,479	5,453

Source: Hawaii State Department of Labor and Industrial Relations, Division of Occupational Safety and Health, Boiler and Elevator Inspection Bureau, records.

Table 508.-- ENERGY GENERATED, PURCHASED, SOLD, AND USED BY SUGAR PLANTATIONS, BY ISLANDS: 1986

Subject	State total	Hawaii	Kauai	Maui	Oahu
Electricity (millions of kilowatt-hours)					
Generated 1/	878.32	241.47	218.75	272.99	145.11
Purchased	24.11	1.77	2.08	7.4	12.86
Sold	434.65	158.52	100.23	124.76	51.14
Used 2/	467.72	84.72	120.60	155.62	106.78
Gross heat values of boiler fuels (billions of Btu's)					
All fuels	27,948	9,187	5,876	8,318	4,567
Bagasse	23,679	8,077	5,358	6,460	3,784
Fuel oil	3,980	1,105	498	1,785	592
Other fuels	289	5	20	73	191

1/ Includes electricity generated by steam and by hydroelectric or diesel engine generators.

2/ Includes transmission losses and electricity used to operate power plant auxiliaries.

Source: Hawaiian Sugar Planters' Association, Energy Inventory of Hawaiian Sugar Plantations - 1986 (Energy Report 24, December 18, 1987), pp. 6-9.

Table 509.-- TAX CREDITS FOR RESIDENTIAL SOLAR AND HEAT PUMP WATER HEATING SYSTEMS: 1975 TO 1986

[The State allows a 10-percent State individual income tax credit for solar energy devices installed 1975-1985 and heat pump systems installed 1981-1985, and a 15-percent credit for solar and heat pump systems installed after 1985. Data exclude commercial, military, and government systems, those installed previously, and those for which no State tax credit was made. Devices in condominiums may be claimed on a pro-rata basis for each housing unit. Federal solar tax credit was discontinued in 1986]

Year installed	Number of claims		Cumulative number of claims		Average solar device cost (dollars)	Total tax credit allowed ($1,000)	
	Solar devices	Heat pumps	Solar devices	Heat pumps		Solar devices	Heat pumps
1975-77	1,101	...	1,101	...	2,135	230	...
1978	4,061	...	5,162	...	2,907	1,120	...
1979	4,375	...	9,537	...	3,031	1,250	...
1980	4,704	...	14,241	...	3,346	1,493	...
1981	6,445	2,013	20,686	2,013	3,500	2,107	164
1982	4,407	3,122	25,093	5,135	3,695	1,512	154
1983	3,148	665	28,241	5,800	3,601	1,076	40
1984	4,464	257	32,705	6,057	3,519	1,482	13
1985	6,740	12	39,445	6,069	3,897	2,616	1
1986	592	22	40,037	6,091	2,230	198	4

Source: Hawaii State Department of Taxation, Tax Credits Claimed by Hawaii Residents for 1977-1986.

Table 510.-- PERCENT OF HOUSING UNITS WITH SOLAR OR HEAT PUMP WATER HEATING SYSTEMS: 1977 TO 1986

System	1977	1979	1981	1983	1984	1985	1986
Solar	0.3	2.9	5.9	7.9	9.0	10.6	10.6
Heat pump	(NA)	(NA)	0.6	1.6	1.7	1.6	1.6

NA Not available.

Source: Calculated from cumulative totals (as of Dec. 31) in table 509 and DBED estimates of total housing stock on following April 1 in table 627.

Table 511.-- FEDERAL OBLIGATIONS FOR RESEARCH AND DEVELOPMENT IN HAWAII: 1981 TO 1986

[Millions of dollars. For fiscal years ended September 30. The data include the obligations of 10 or 11 major R and D support agencies and represent 97 percent or more of the Federal R and D obligation]

Type of obligation	1981	1982	1983	1984	1985	1986
Total obligations for R&D	49.9	44.5	71.4	53.4	57.9	55.2
Obligations for R&D plant	0.7	0.1	0.1	0.6	0.9	0.6

Source: National Science Foundation, Federal Funds for Research and Development: Fiscal Years 1974 to 1985, Vol. XXXV, diskettes, tables C-162 and C-163; and Federal Funds for Research and Development: Fiscal Years 1986, 1987, and 1988, Vol. XXXVI, Detailed Statistical Tables, NSF87-314 (1987), p. 167.

Table 512.-- RESEARCH AND DEVELOPMENT EXPENDITURES AT DOCTORATE-GRANTING INSTITUTIONS: 1981 TO 1985

[Thousands of dollars. For fiscal years ended September 30]

Type of expenditure	1981	1982	1983	1984	1985
Total R&D expenditures	42,997	43,439	45,401	51,051	54,025
Federally financed	25,153	26,616	27,633	32,701	34,886

Source: National Science Foundation, Academic Science/Engineering: R and D Funds, Fiscal Years 1978 to 1985, diskettes, table B-21 and table B-22.

Table 513.-- RESEARCH AND NON-RESEARCH EXTRAMURAL FUNDING, FOR THE UNIVERSITY OF HAWAII: 1983-84 TO 1987-88

[Research and non-research awards received through the Office of Research Administration, University of Hawaii]

Fiscal year	Total		Research		Non-research	
	Awards	Amount (dollars)	Awards	Amount (dollars)	Awards	Amount (dollars)
1983-84 ...	584	47,993,935	358	30,203,140	226	17,790,795
1984-85 ...	628	53,270,256	385	36,699,412	243	16,570,844
1985-86 ...	643	53,976,468	354	35,750,696	289	18,225,772
1986-87 ...	643	52,360,382	378	35,787,240	265	16,573,142
1987-88 ...	678	61,476,926	417	39,410,637	261	22,066,289

Source: Office of Research Administration, University of Hawaii, 1987-1988 Extramural Awards (1988), p. 2.

Table 514.-- PATENTS ISSUED TO HAWAII RESIDENTS: 1980 TO 1987

[Fiscal years ended September 30. Data include design, plant, and reissue patents]

Fiscal year	Patents	Fiscal year	Patents
1980	32	1984	43
1981	49	1985	33
1982	31	1986	37
1983	30	1987	52

Source: U.S. Department of Commerce, Patent and Trademark Office, Commissioner of Patents and Trademarks Annual Report, Fiscal Year '87, p. 57.

Table 515.-- TELESCOPES AT THE SUMMITS OF MAUNA KEA AND HALEAKALA: 1988

Location and telescope (diameter in meters)	Year completed	Capital costs (millions of 1986 dollars)	Operating costs, 1988 (million dollars)	Local staff (persons)
Mauna Kea:				
UH 0.61-m.	1969	0.3	0.1	13
UH 0.61-m.	1969	0.3		
UH 2.24-m.	1970	8.0	1.2	
Canada-France-Hawaii (CFHT)	1979	45.0	3.5	43
NASA IRTF 3.0-m.	1979	15.0	1.8	10
UK (UKIRT) 3.8-m.	1979	15.0	1.5	29
James Clerk Maxwell (JCMT)	1986	20.0	1.0	20
Caltech Submillimeter (CSO) 10.4-m.	1986	10.0	1.5	11
W.M. Keck Observatory Optical/IR 10.0-m. 1/	1991	85.0	2.3	35
Haleakala (on UH land):				
Mees Solar Observatory	1956	0.5	0.3	6
Lunar Ranging Facility	1976/84	3.25	0.7	9
Gamma Ray Facility	1985	2.0	0.2	1

1/ Under construction. Figures are projected.

Source: University of Hawaii at Manoa, Institute for Astronomy, data provided July 18, 1988.

Table 516.-- COMPUTER USE BY OAHU RESIDENTS EMPLOYED OUTSIDE THEIR HOMES: MARCH 1988

Subject	Percent
Use of personal computer at place of work	100
Always	22
Frequently	14
Occasionally	14
Never	50
Facsimile machine (FAX) at place of work	100
Yes	41
No	46
Don't know	13
Own a personal computer for use at home	100
Yes	25
No	75

Source: Omnitrak/Hawaii Inc. Poll (400 telephone interviews) reported in Honolulu Star-Bulletin, April 19, 1988, p. C-1.

Section 18

TRANSPORTATION

This section presents statistics relating to public roads, motor vehicles, bicycles, traffic accidents, local public transit, civil aviation, harbors, and water traffic. Other information bearing on transportation appears in Sections 7, 12, 14, and 24.

Motor vehicle registration in Hawaii increased from 564,000 in 1977 to 798,000 in 1987. Vehicle miles rose during the same period from 4.5 billion to 7.2 billion. Hawaii residents purchased 60,000 new passenger cars and 12,000 trucks in 1987. By the end of that year, 628,000 licensed drivers had access to 4,071 miles of streets and highways throughout the State. Bus passengers carried by the Honolulu Mass Transit Lines increased from 66 million in 1977 to 74 million in 1987. Registered bicycles numbered 111,000 in 1987.

Most scheduled interisland travel is by air. In 1987, airlines and air taxis reported 8.8 million interisland passengers, some 37 percent more than in 1977, and carried 61,000 tons of cargo. The State has seven commercial airports, 15 general aviation, military or semi-private airports, 10 civilian heliports, 3,300 active pilots, and about 366 active civil aircraft in general aviation.

Rapid growth is similarly evident in transpacific air travel. Although surface passenger arrivals dropped from 54,000 in 1959 to 870 in 1987, air arrivals increased during the same 28-year span from 224,000 to 6.3 million. Overseas cargo received in the State in 1986 amounted to 92,000 tons by air and 8.5 million tons by ship.

Undocumented State-registered vessels as of December 31, 1987 numbered 14,000, compared with 8,000 in 1970. Median length was 17.4 feet, and four-fifths were stored on land. There were 1,380 documented vessels in the State in 1988, more than double the 1970 total.

The chief source for transportation statistics is the Hawaii State Department of Transportation and its Highways, Harbors and Airports Divisions. Other sources include the U.S. Coast Guard, Federal Aviation Administration, Federal Highway Administration, Army Corps of Engineers, Honolulu Department of Transportation Services and Department of Data Systems, county finance departments, Hawaii Automobile Dealers' Association, and individual transportation companies. Data for the entire period of record through 1976 appear in Historical Statistics of Hawaii, Section 17. Similar statistics for other areas are reported in Statistical Abstract of the United States: 1988, Sections 21 and 22.

Table 517.-- HIGHWAY DISTANCES: 1988

Route	Statute miles
HAWAII	
Hilo-Lyman Field	2.0
Hilo-Kalapana	26.1
Hilo-Mauna Kea summit	39.3
Hilo-Mauna Loa summit	52.4
Hilo-Volcano House	30.7
Hilo-Kailua, via Naalehu	125.2
Hilo-Kailua, via Saddle Rd.	84.3
Hilo-Kailua, via Hamakua	91.2
Hilo-Waimea, via Saddle Rd.	57.9
Hilo-Waimea, via Hamakua	55.3
Hilo-Upolu Pt., via Hamakua	83.7
Hilo-Kawaihae, via Hamakua	69.5
Waimea-Hawi	21.4
Waimea-Kawaihae	11.5
Kawaihae-Hawi	18.0
Kawaihae-Kailua	48.4
Kailua-Keahole Airport	6.8
Kailua-Keauhou	6.9
MAUI	
Wailuku-Kahului	2.3
Wailuku-Kahului Airport	4.2
Wailuku-Hana, via Keanae	53.7
Wailuku-Hana, via Kaupo	59.8
Wailuku-Haleakala summit	38.2
Wailuku-Makena	17.6
Wailuku-Lahaina, via Kahakuloa	38.0
Wailuku-Lahaina, via Olowalu	20.9
Kahului-Kihei	7.9
Lahaina-Wailea	32.4
Lahaina-Napili	8.9
Lahaina-Kaanapali	3.7
LANAI	
Lanai City-Lanai Airport	2.7
Lanai City-Hulopoe	8.0
MOLOKAI	
Kaunakakai-Kaluakoi Hotel	19.5
Kaunakakai-Maunaloa	16.5
Kaunakakai-Airport	7.0
Kaunakakai-Halawa	27.6
Airport-Sheraton Hotel	11.5
OAHU 1/	
Honolulu-Ala Moana Center	1.6
Honolulu-UH, via King Street	3.2
Honolulu-Waikiki	3.2
Honolulu-Waimanalo, via Koko Head	21.8
Honolulu-Waimanalo, via Nuuanu	13.3
Honolulu-Kailua, via Nuuanu	11.6
Honolulu-Kaneohe, via Kalihi	10.8
Honolulu-Kahuku, via Kahaluu	36.2
Honolulu-Kahuku, via Wahiawa	46.2
Honolulu-Kaena Pt., via Wahiawa	42.4
Honolulu-Kaena Pt., via Waianae	44.3
Honolulu-Wahiawa	20.5
Honolulu-Pearl Harbor Shipyard	6.5
Honolulu-Honolulu Airport	4.8
Waikiki-UH, via Kapahulu	3.2
Waikiki-Honolulu Airport	8.0
Waimanalo-Kahuku	33.0
KAUAI	
Lihue-Haena	38.0
Lihue-Wailua	5.9
Lihue-Lihue Airport	2.0
Lihue-Poipu	11.9
Lihue-Mana	32.9
Lihue-Kalalau Lookout	44.6
Poipu-Kalalau Lookout	36.8
Poipu-Princeville	40.7

1/ Honolulu distances measured from King and Bishop Streets; Waikiki, from Kalakāua and Lewers.

Source: Hawaii State Department of Transportation, Highways Division, records.

Table 518.-- LENGTH OF STREETS AND HIGHWAYS, PAVED AND UNPAVED: 1923 TO 1987

[Excludes private thoroughfares and military roads not regularly open to public use]

Category	1923	1938	1958	1973	1987
Total mileage ...	1,479	2,040	2,967	3,666	4,071
Paved	565	1,367	2,393	3,172	3,860
Unpaved	914	673	575	494	211

Source: Robert C. Schmitt, Historical Statistics of Hawaii (University Press of Hawaii, 1977), p. 429; present report, table 519.

Table 519.-- LENGTH OF STREETS AND HIGHWAYS, PAVED AND UNPAVED, BY ISLANDS: DECEMBER 31, 1987

[Excludes private thoroughfares and military roads not regularly open to public use]

Island	Total mileage	Paved		Unpaved
		Freeways	Other	
State total	4,070.78	96.55	3,762.99	211.25
Hawaii	1,462.93	7.04	1,383.27	72.62
Maui	581.78	3.21	521.87	56.70
Lanai	45.83	-	31.83	14.00
Molokai	129.29	-	117.29	12.00
Oahu	1,460.99	86.30	1,341.25	33.44
Kauai	389.17	-	367.48	22.49
Niihau	-	-	-	-

Source: Hawaii State Department of Transportation, Highways Division, records.

Table 520.-- HIGHWAY BRIDGES, BY ISLANDS: DECEMBER 31, 1987

Island	Number of bridges	Longest bridge		Highest bridge	
		Location	Length (feet)	Location	Height (feet)
State .	1,107	Airport Viaduct	14,890	Nanue	208
Hawaii	254	Hakalau	775	Nanue	208
Maui	155	Kalialinui	324	Uaoa	79
Lanai	-	None	...	None	...
Molokai	13	Manawainui	325	Manawainui	50
Oahu	607	Airport Viaduct .	14,890	Kipapa	156
Kauai	78	Kalihiwai	798	Wahiawa, Koloa ..	90

Source: Hawaii State Department of Transportation, Highways Division, records.

Table 521.-- HIGHWAY TUNNEL LENGTHS: DECEMBER 31, 1987

Island and name of tunnel	Length (feet)
Oahu:	
Pali No. 1: Inbound (to Honolulu)	1,000
Outbound (from Honolulu)	1,080
Pali No. 2: Inbound	500
Outbound	497
Wilson: Inbound	2,775
Outbound	2,813
Middle Street	393
Structure No. 8, Waiawa Interchange	300
Maui:	
Olowalu	318
Kauai:	
Kipu-Mahaulepu (private road)	2,200

Source: Hawaii State Department of Transportation, Highways Division, records; McBryde Sugar Plantation, records.

Table 522.-- SIGNALIZED INTERSECTIONS AND METERED PARKING SPACES, BY ISLANDS: DECEMBER 31, 1985

Type of facility	State total	Hawaii	Maui	Lanai	Molokai	Oahu	Kauai
Signalized intersections	580	38	18	-	-	516	8
Metered on-street parking spaces	3,630	816	-	-	-	2,814	-
Metered off-street parking spaces 1/	3,226	277	68	-	18	2,797	66

1/ Limited to spaces under State or county control. Excludes about 900 spaces on Oahu converted to contract operation.

Source: Compiled by Hawaii State Department of Planning and Economic Development from Hawaii State Department of Accounting and General Services, Hawaii State Department of Transportation, City and County of Honolulu Department of Transportation Services, Hawaii County Department of Public Works, Kauai County Department of Public Works, and Maui County Department of Public Works.

Table 523.-- VEHICLE DENSITIES: 1923 TO 1987

Measure	1923	1938	1958	1973	1987
Motor vehicles per --					
1,000 persons 1/	65.6	151.2	330.9	529.0	664.7
Mile of street or highway	13.3	30.4	68.2	130.0	196.1
Persons per 1/ --					
Motor vehicle	15.2	6.6	3.0	1.9	1.5
Mile of street or highway	202.5	201.0	206.2	245.9	295.0

1/ Based on resident population through 1938 and de facto population thereafter.

Source: Robert C. Schmitt, Historical Statistics of Hawaii (University Press of Hawaii, 1977), tables 1.4 and 17.2; present report, tables 3, 518, and 524.

Table 524.-- VEHICLE REGISTRATION, BY TYPE OF VEHICLE: 1977 TO 1987

[Taxable and non-taxable, including military
non-resident exempt vehicles]

Year	All vehicles registered	Motor vehicles									Trailers and semitrailers
		All motor vehicles	Passenger vehicles 1/	Ambulances, hearses, patrol wagons	Buses	Trucks 1/	Truck tractors, tow trucks	Truck crane, misc.	Motorcycles, motor scooters 2/		
1977	580,380	563,964	475,368	81	2,888	73,762	1,848	609	9,408		16,416
1978	599,990	583,601	489,878	84	3,052	78,447	1,809	560	9,771		16,389
1979	626,841	610,570	510,353	91	3,267	84,578	1,784	511	9,986		16,271
1980	633,846	617,571	514,669	85	3,366	87,542	1,725	488	9,696		16,275
1981	667,019	649,350	541,932	88	3,577	90,954	1,641	458	10,700		17,669
1982	689,468	671,513	566,060	80	3,863	88,410	1,395	388	11,317		17,955
1983	(NA)	702,854	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)		(NA)
1984	735,458	717,171	599,845	68	4,034	101,233	1,428	364	10,199		18,287
1985	767,892	749,034	625,823	66	4,189	106,673	1,334	342	10,607		18,858
1986	790,855	771,575	642,636	60	4,158	112,053	1,290	323	11,055		19,280
1987	818,430	798,317	661,674	54	4,198	119,338	1,220	318	11,515		20,113

Footnotes and source on next page.

Table 524.-- VEHICLE REGISTRATION, BY TYPE OF VEHICLE: 1977 TO 1987 -- Con.

NA Not available.

1/ Beginning in 1979, vans and other trucks under 6,500 lb. in personal use were legally classified as passenger vehicles, but the data shown here have been adjusted to continue inclusion of such vehicles in the totals for trucks.

2/ Excluding mopeds (1.5 HP or less), which are legally classified as bicycles.

Source: City and County of Honolulu, Department of Data Systems, unpublished tabulations, provided by the Hawaii State Department of Transportation, Motor Vehicle Safety Office; present report, table 527.

Table 525.-- MOTOR VEHICLES REGISTERED, BY COUNTIES: 1977 TO 1987

[Taxable and non-taxable, including military non-resident exempt vehicles. Includes passenger cars, buses, trucks, and motorcycles but excludes trailers and semi-trailers]

Year	State total	City and County of Honolulu	County of Hawaii	County of Kauai	County of Maui
1977	563,964	424,892	60,374	26,920	51,778
1978	583,601	436,347	63,025	27,614	56,615
1979	610,570	452,449	67,718	29,492	60,911
1980	617,571	454,316	70,047	30,604	62,604
1981	649,350	476,995	75,812	32,932	63,611
1982	671,513	495,629	77,024	33,931	64,929
1983	702,854	515,002	80,090	35,365	72,397
1984	717,171	525,599	80,840	35,236	75,496
1985	749,034	544,976	85,806	37,659	80,593
1986	771,575	556,935	89,918	40,585	84,137
1987	798,317	571,738	93,095	43,925	89,559

Source: City and County of Honolulu, Department of Data Systems, unpublished tabulations provided by the Hawaii State Department of Transportation, Motor Vehicle Safety Office; present report, table 527.

Table 526.-- PASSENGER VEHICLES REGISTERED, BY COUNTIES: 1977 TO 1987

[Taxable and non-taxable, including military non-resident exempt vehicles. Excludes ambulances, hearses, buses, trucks, motorcycles, and trailers]

Year	State total	City and County of Honolulu	County of Hawaii	County of Kauai	County of Maui
1977	475,368	367,398	46,072	21,001	40,897
1978	489,878	376,260	47,764	21,411	44,443
1979 1/ ...	510,353	388,788	51,159	22,790	47,616
1980	514,669	389,576	52,682	23,561	48,850
1981	541,932	409,305	57,397	25,363	49,867
1982	566,060	429,244	59,103	26,297	51,416
1983	(NA)	(NA)	(NA)	(NA)	(NA)
1984	599,845	447,872	63,182	27,376	61,415
1985	625,823	460,906	68,602	29,890	66,425
1986	642,636	466,938	73,356	32,853	69,489
1987	661,674	475,140	76,655	35,862	74,017

NA Not available.

1/ Beginning in 1979, vans and other trucks under 6,500 lb. in personal use were legally classified as passenger vehicles, but the 1979 and subsequent data shown here have been adjusted to continue inclusion of such vehicles in the totals for trucks.

Source: City and County of Honolulu, Department of Data Systems, unpublished tabulations provided by Hawaii State Department of Transportation, Motor Vehicle Safety Office.

Table 527.-- VEHICLE REGISTRATION, BY TYPE OF VEHICLE, FOR COUNTIES: 1987 AND 1983

[Taxable and non-taxable, including military non-resident exempt vehicles]

Type of vehicle	State total	City and County of Honolulu	County of Hawaii	County of Kauai	County of Maui
1987					
All vehicles	818,430	582,807	97,656	46,091	91,876
Motor vehicles	798,317	571,738	93,095	43,925	89,559
Passenger vehicles 1/	661,674	475,140	76,655	35,862	74,017
Ambulances 2/	54	39	11	1	3
Buses	4,198	3,332	249	122	495
Trucks 1/	119,338	83,307	14,552	7,386	14,093
Truck tractors 3/	1,220	608	287	124	201
Truck cranes 4/	318	124	78	32	84
Motorcycles 5/	11,515	9,188	1,263	398	666
Trailers and semi-trailers ..	20,113	11,069	4,561	2,166	2,317
1983					
Motor vehicles	702,854	515,002	80,090	35,365	72,397
U-drive	30,442	18,580	2,891	1,478	7,493
All others	672,412	496,422	77,199	33,887	64,904

1/ Vans and other trucks under 6,500 lb. in personal use, legally classified as passenger vehicles, are included in the trucks category.

2/ Including hearses and patrol wagons.

3/ Including tow trucks.

4/ Including miscellaneous vehicles.

5/ Including motorscooters but excluding mopeds (1.5 HP or less), legally classified as bicycles.

Source: 1987 from City and County of Honolulu, Department of Data Systems, unpublished tabulation provided by Hawaii State Department of Transportation, Motor Vehicle Safety Office; 1983 from Applied Analysis, Inc., Estimating Annual Vehicle-miles Traveled (VMT) in the State of Hawaii (August 1987), and records.

Table 528.-- AUTOMOBILES, TRUCKS, AND VANS AVAILABLE TO OCCUPIED HOUSING UNITS, BY COUNTIES: 1980

[illegible] vehicles available	The State	Hawaii	Honolulu	Kalawao	Kauai	Maui
Occupied units	294,052	29,237	230,214	71	12,020	22,510
None	30,509	2,463	25,628	8	788	1,622
1	115,357	9,193	95,735	18	3,209	7,202
2	94,699	10,775	71,456	25	4,440	8,003
3 or more	53,487	6,806	37,395	20	3,583	5,683

Source: U.S. Bureau of the Census, 1980 Census of Housing, Detailed Housing Characteristics, Hawaii, HC80-1-B13 (May 1983), tables 61 and 94.

Table 529.-- TAXABLE VEHICLES, BY TYPE AND EMPTY WEIGHT: 1987

Empty weight	Passenger vehicles	Buses	Trucks 1/	Truck tractors, tow trucks	Motorcycles	Trailer
All taxable vehicles	595,592	2,747	38,942	668	6,349	13,302
Under 2,000 lb.	45,047	-	23	-	6,345	10,147
2,000 to 2,999 lb.	323,053	43	8,881	9	1	477
3,000 to 3,999 lb.	181,651	80	11,648	9	2	174
4,000 to 4,999 lb.	42,226	776	8,919	9	1	170
5,000 to 5,999 lb.	2,959	858	2,338	13	-	194
6,000 to 9,999 lb.	423	343	3,358	95	-	900
10,000 lb. and over	233	647	3,775	533	-	1,240
Median weight (lb.)	2,782	5,553	3,907	14,141	<2,000	<2,000

1/ Vans and other trucks under 6,500 lb. in personal use are classified as passenger vehicles.

Source: Hawaii State Department of Transportation, Highways Division, Staff Services Office, Budget, Methods and Systems Staff; printouts from Honolulu Department of Data Systems. Medians calculated by Hawaii State Department of Business and Economic Development.

Table 530.-- TRUCK CHARACTERISTICS: 1972, 1977, AND 1982

[Percent]

Vehicular and operational characteristics	1972	1977	1982 1/
Major use: Personal transportation	37.6	50.0	54.3
Body type: Pickup, panel, multistop, or walk-in .	73.5	86.4	89.6
Vehicle size: Light	71.6	89.0	92.9
Annual miles: Less than 10,000	59.8	54.1	59.7
Year model: Over 4 years old	59.3	68.1	75.8
Vehicle acquisition: Purchased new	55.9	54.6	47.3
Fleet size: 1 truck	53.4	64.0	72.3
Truck type: Single-unit, 2 axles	91.2	95.7	96.6
Range of operation: Local	84.6	87.3	78.2
Fuel type: Diesel and LPG	6.2	4.6	3.7

1/ There were 120,000 trucks in Hawaii in 1982, which traveled 1,071,700,000 truck miles, or 8,900 per truck.

Source: U.S. Bureau of the Census, 1982 Census of Transportation, Truck Inventory and Use Survey, Hawaii, TC82-T-12 (June 1985), tables 1 and 2.

Table 531.-- NEW PASSENGER CARS AND MOTOR TRUCKS REGISTERED: 1982 TO 1987

Year	Total	Passenger cars	Motor trucks
1982	44,489	37,137	7,352
1983	52,927	42,772	10,155
1984	63,625	48,791	14,834
1985	67,875	51,330	16,545
1986	68,060	49,680	18,380
1987	73,138	51,446	21,692

Source: R.L. Polk and Co., cited in Motor Vehicle Manufacturers Association of the United States, Inc., MVMA Motor Vehicle Facts and Figures (annual).

Table 532.-- NEW PASSENGER CAR AND TRUCK REGISTRATIONS, BY COUNTIES: 1985 TO 1987

Year	State total	Honolulu	Maui	Hawaii	Kauai
1985	68,676	50,058	8,095	7,660	2,863
1986	68,379	48,497	8,535	7,896	3,451
1987	71,987	49,028	10,865	7,436	4,658

Source: Hawaii Automobile Dealers' Association, 1988 HADA Yearbook, p. 10.

Table 533.-- NEW PASSENGER CAR AND TRUCK REGISTRATIONS, BY MAKE, 1987, AND RANK, 1985 TO 1987

Make	New registrations, 1987			Rank		
	Total	Passenger cars	Trucks	1985	1986	1987
All makes ..	71,987	60,232	11,755	...	...	...
Toyota	10,517	8,844	1,673	1	1	1
Nissan	9,970	8,063	1,907	2	2	2
Ford	9,170	6,732	2,438	4	3	3
Chevrolet	7,690	6,322	1,368	3	4	4
Honda	6,043	6,043	-	5	5	5
Dodge	4,369	3,206	1,163	7	7	6
Mazda	3,163	2,372	791	6	6	7
Isuzu	2,091	1,373	718	12	14	8
Oldsmobile	1,844	1,841	3	8	8	9
Jeep	1,705	1,466	239	18	11	10
All others 1/ ...	15,425	13,970	1,455	...	...	...

1/ For details, see source.

Source: Hawaii Automobile Dealers Association, 1988 HADA Yearbook, p. 6.

Table 534.-- NEW PASSENGER CAR AND TRUCK REGISTRATIONS, BY PLACE OF MANUFACTURE: 1986 AND 1987

[Percent distributions]

Place of manufacture 1/	All types		Passenger cars		Trucks	
	1986	1987	1986	1987	1986	1987
Total ...	100.0	100.0	100.0	100.0	100.0	100.0
Imports:						
Japanese ...	53.2	49.9	54.3	45.2	45.5	50.7
European ...	1.0	3.8	2.2	4.2	0.1	0.0
Domestics	45.6	45.4	42.7	50.0	51.3	47.0
Unclassified 2/	0.2	0.9	0.8	0.6	3.1	2.3

1/ Japanese cars sold in the U.S. with U.S. nameplates are classified as domestic. Cars assembled in the U.S. with Japanese nameplates are classified as imports.

2/ AMC (except Jeep), Jaguar, Rolls-Royce, and other cars with small market share in Hawaii.

Source: Hawaii Automobile Dealers' Association, 1988 HADA Yearbook, p. 6, as corrected.

Table 535.-- HAWAII DRIVERS LICENSES IN FORCE, BY COUNTIES: 1977 TO 1987

[As of December 31]

Year	State total	City and County of Honolulu	County of Hawaii	County of Kauai	County of Maui
1977	541,353	424,242	51,773	23,557	41,781
1978	541,263	420,005	53,504	24,381	43,373
1979	543,202	418,751	53,735	25,606	45,110
1980	541,842	411,102	57,780	26,333	46,627
1981	541,279	407,062	60,171	27,261	46,785
1982	561,345	419,468	63,610	28,446	49,821
1983	574,533	428,897	64,560	29,169	51,907
1984	582,218	434,053	65,778	28,801	53,586
1985	593,952	441,278	68,177	29,188	55,309
1986	612,101	453,220	70,493	30,374	58,014
1987	628,027	463,522	72,142	31,831	60,532

Source: Tabulations by City and County of Honolulu, Department of Data Systems, provided by Hawaii State Department of Transportation, Motor Vehicle Safety Office.

Table 536.-- HAWAII DRIVERS LICENSES IN FORCE, BY AGE AND SEX: DECEMBER 31, 1987

Age	Both sexes	Male	Female
Total	628,027	341,638	286,389
15 to 19 years	37,648	21,568	16,080
20 to 24 years	63,456	33,971	29,485
25 to 34 years	162,533	84,724	77,809
35 to 44 years	144,915	76,128	68,787
45 to 54 years	84,034	45,061	38,973
55 to 64 years	75,740	41,589	34,151
65 to 74 years	45,653	28,368	17,285
75 to 84 years	13,142	9,506	3,636
85 years and over	906	723	183
Median age (years)	38.5	39.0	37.9

Source: Tabulation by City and County of Honolulu, Department of Data Systems, provided by Hawaii State Department of Transportation, Motor Vehicle Safety Office.

Table 537.-- TOTAL 24-HOUR TRAFFIC VOLUMES AT SELECTED OAHU SURVEY SITES: 1985 TO 1987

Site	1985	1986	1987
Pali Highway at tunnels	47,753	49,242	50,611
Likelike Highway at tunnels	48,501	47,452	48,386
H-1 Freeway at Manoa-Palolo Drainage Canal 1/	118,028	122,603	(NA)
H-1 Freeway at Kapalama Drainage Canal Bridge	174,655	193,962	(NA)
Nimitz Highway at Kapalama Drainage Canal Bridge	62,410	63,626	63,040
Kalanianaole Highway east of Ainakoa Ave.	79,830	75,852	77,413

NA Not available.

1/ Includes Kapiolani on- and off-ramps.

Source: Hawaii State Department of Transportation, Highways Division, Planning Branch, records.

Table 538.-- MOTOR VEHICLE FUEL CONSUMPTION AND VEHICLE MILES: 1977 TO 1987

Year and county	Highway fuel consumption 1/		Vehicle miles of travel	
	Total (1,000 gallons)	Gallons per vehicle 2/	Total (millions)	Per vehicle 2/
1977	324,449	578	4,542.3	8,088
1978	338,440	583	4,738.2	8,164
1979	339,989	560	4,759.9	7,834
1980	330,734	536	5,570.0	9,019
1981	319,588	492	5,855.7	9,018
1982	323,827	482	6,048.3	9,007
1983	327,769	(NA)	(NA)	(NA)
1984	339,491	473	6,486.3	9,044
1985	345,672	461	6,761.5	9,027
1986	357,716	464	6,970.7	9,034
1987	367,984	461	7,217.2	9,041
COUNTIES: 1987				
Honolulu	255,687	450	5,017.3	8,831
Hawaii	49,210	521	923.8	9,772
Kauai	21,685	477	469.7	10,331
Maui	41,402	459	806.4	8,946

NA Not available.

1/ Includes gasoline, gasohol, diesel oil, and butane gas. Gasohol was no longer used in motor vehicles after June 1982.

2/ Based on motor vehicle total by county of inspection; includes both taxable and nontaxable vehicles, and all military nonresident exempt vehicles. Data include passenger cars, buses, trucks, and motorcycles but exclude trailers and semi-trailers.

Source: Hawaii State Department of Transportation, Highways Division, Planning Branch, records.

Table 539.-- MEANS OF TRANSPORTATION TO WORK, BY ISLAND OF RESIDENCE: 1960 TO 1980

[Includes members of the Armed Forces]

Means of transportation to work	Oahu			Other islands		
	1960	1970	1980	1960	1970	1980
All workers	201,362	272,909	369,523	47,044	54,401	88,194
Private automobile 1/	128,615	213,700	282,479	28,377	44,314	76,728
Bus or streetcar	19,634	19,147	36,447	405	323	915
Railroad, subway	11	455	38	12	-	-
Taxicab	(NA)	612	557	(NA)	43	143
Other means	4,310	7,038	12,553	5,840	3,148	1,892
Walked only	13,899	27,771	31,069	8,315	5,232	6,043
Worked at home	29,571	4,186	6,380	3,272	1,341	2,473
Not available	5,322	-	-	823	-	-
PERCENT						
Private automobile 1/	63.9	78.3	76.4	60.3	81.5	87.0
Bus or streetcar	9.8	7.0	9.9	0.9	0.6	1.0
Walked only	6.9	10.2	8.4	17.7	9.6	6.9
Worked at home	14.7	1.5	1.7	7.0	2.5	2.8

1/ Includes carpool.

Source: U.S. Bureau of the Census, U.S. Census of Population: 1960, PC(1)-13C; table 71; 1970 Census of Population, PC(1)-C13, table 72; 1980 Census of Population, PC80-1-C13, table 65.

Table 540.-- HIGHWAY SPEEDS, BY TYPE OF HIGHWAY: 1981 TO 1986

[Years ended September 30]

Measurement and year	State-wide	Urban inter-state	Rural: Inter-state	Rural: Other arter-ials	Rural: Major collec-tors
AVERAGE SPEEDS (MILES PER HOUR)					
1981	53.0	54.0	55.1	51.1	52.8
1982	54.1	56.6	56.2	51.5	52.4
1983	54.0	56.7	56.5	51.6	51.8
1984	54.7	56.8	56.8	52.4	53.1
1985	54.8	56.9	58.0	52.3	53.0
1986	55.1	58.4	(NA)	51.4	52.6
1985					
Miles per hour:					
Median speed	55.1	57.3	58.7	52.7	53.1
85th percentile speed	61.8	63.8	65.2	59.4	60.8
Percent exceeding --					
55 miles per hour	43.4	58.4	67.4	29.0	19.1
60 miles per hour	18.8	26.3	34.9	10.5	8.5
65 miles per hour	6.5	8.5	11.5	3.8	5.3
1986					
Miles per hour:					
Median speed	55.4	58.9	(NA)	51.6	52.8
85th percentile speed	62.5	65.8	(NA)	59.1	59.0
Percent exceeding --					
55 miles per hour	49.5	67.9	(NA)	31.8	26.3
60 miles per hour	23.1	37.3	(NA)	8.7	7.8
65 miles per hour	8.6	14.1	(NA)	3.0	2.7

NA Not available.

Source: U.S. Department of Transportation, Federal Highway Administration, Highway Statistics (annual).

Table 541.-- MAJOR TRAFFIC ACCIDENTS, TRAFFIC INJURIES, AND TRAFFIC DEATHS, 1977 TO 1987, AND BY COUNTIES, 1987

Year	Major traffic accidents 1/		Persons injured or killed	
	Total	Fatal	Injured only	Killed
1977	16,188	139	12,245	154
1978	18,545	175	13,327	195
1979	19,158	183	13,963	205
1980	18,301	165	13,026	185
1981	16,582	136	11,999	150
1982	16,407	143	11,865	161
1983	16,372	131	11,852	139
1984	17,657	127	12,390	136
1985	19,577	118	12,613	126
1986 2/	20,852	108	10,941	117
1987	23,618	126	11,987	138
COUNTIES: 1987				
Honolulu	18,700	72	8,582	75
Hawaii	2,530	29	1,743	36
Kauai	882	10	530	11
Maui	1,506	15	1,132	16

1/ Traffic accidents with damage of $300 or more or causing injury or death.

2/ Revised from Data Book 1987, table 542.

Source: Hawaii State Department of Transportation, Highways Division, Major Traffic Accidents, State of Hawaii (annual) and records.

Table 542.-- REGISTERED TAXICABS AND BICYCLES, BY ISLANDS: 1986 AND 1987

[As of December 31]

Island	Taxicabs		Bicycles and mopeds	
	1987 1/	1986	1987	1986
State total	1,716	1,618	111,542	104,271
Hawaii	93	90	3,675	2,980
Maui	123	123	2,739	2,572
Lanai	-	2	223	215
Molokai	-	-	238	268
Oahu	1,473	1,366	100,753	94,626
Kauai	27	37	3,914	3,610

1/ The figure for Kauai is incomplete.

Source: Compiled by the Hawaii State Department of Business and Economic Development from the County Departments of Finance.

Table 543.-- MOTOR CARRIER CHARACTERISTICS, BY COUNTIES: JULY 1988

County	Passenger carriers 1/			Property carriers 2/	
	Number of carriers	Number of vehicles	Seating capacity	Number of carriers	Number of vehicles
State total	1,019	4,859	131,742	2,755	16,371
Hawaii	76	532	20,526	516	2,930
Maui	146	810	21,808	376	1,932
Honolulu	736	3,133	77,996	1,673	10,466
Kauai	61	384	11,412	190	1,043

1/ Includes mostly tour bus operators; excludes public transit (such as MTL, Inc.), school buses, taxicabs, and rental car companies.

2/ Includes truckers, moving companies, etc.

Source: Compiled by Hawaii State Department of Transportation, Motor Vehicle Safety Office, from Hawaii State Department of Regulatory Agencies, Public Utilities Commission.

Table 544.-- STEAM RAILROAD MILEAGE AND PASSENGERS: 1980 TO 1987

[Data are for the Lahaina, Kaanapali and Pacific Rail Road, the only passenger railroad in the State]

Calendar year	Miles of track	Passengers	Calendar year	Miles of track	Passengers
1980	6	111,699	1984 ...	6	197,876
1981	6	128,178	1985 ...	6	199,759
1982	6	155,059	1986 ...	6	215,735
1983 ...	6	171,892	1987 ...	6	244,555

Source: Lahaina, Kaanapali and Pacific Rail Road, records.

Table 545.-- BUS PASSENGERS, BY FARE CATEGORY, FOR OAHU: 1985 TO 1987

[Calendar year data for City and County of Honolulu bus system]

Fare category	1985	1986	1987
All passengers	74,816,485	74,410,104	74,066,369
Adults, full fare	41,997,746	42,296,391	42,489,644
Students	12,717,660	12,185,244	11,820,592
School subsidy	350,346	368,135	352,692
Stadium express	10,173	10,861	10,152
Senior citizens and handicapped	14,207,457	14,151,242	14,103,035
Chartered service	12,981	17,261	10,674
Free transfers	5,520,122	5,380,970	5,279,580

Source: MTL, Inc., data provided by the City and County of Honolulu, Department of Transportation Services.

Table 546.-- BUS SERVICE, FOR OAHU: 1970 TO 1987

[Service provided by Honolulu Rapid Transit Co., Ltd., through December 31, 1970 and by City and County of Honolulu beginning March 1, 1971]

Year	Number of buses, Dec. 31	Bus mileage 1/	Total passengers 2/	Revenues 3/ (dollars)
1970 4/	141	4,611,357	30,434,906	4,970,000
1971 5/	108	2,986,724	19,413,259	1,246,351
1972	143	4,964,044	31,031,764	4,445,817
1973	315	7,973,393	36,741,009	5,254,908
1974	333	11,670,774	50,519,626	6,807,147
1975	350	13,328,501	58,295,732	7,990,505
1976	350	15,547,127	64,585,334	9,007,134
1977	350	16,242,537	66,311,882	9,629,349
1978	350	15,991,798	67,746,396	9,686,876
1979	350	15,915,000	68,765,000	9,931,000
1980	400	16,579,392	71,601,744	17,388,760
1981	400	16,748,338	73,546,802	17,991,735
1982	400	16,767,816	74,109,528	18,269,144
1983	395	16,654,568	75,051,618	18,157,876
1984	440	16,774,564	76,260,187	18,819,782
1985	440	16,938,692	74,816,485	18,952,566
1986	459	17,065,875	74,410,104	18,802,330
1987	460	16,733,510	74,066,369	18,659,459

1/ All categories of service through 1978 and revenue vehicle miles (estimated) thereafter. Calendar year data.

2/ All categories of service through 1978 and revenue passengers (including senior citizens and handicapped) as estimated thereafter. Calendar year data.

3/ Calendar year 1970; 4-month period ended June 30, 1971; fiscal years ended June 30, 1972 to 1979; calendar years, 1980 forward. The fiscal year figure for 1980 was $14,817,639.

4/ Passenger total excludes 2,277,502 zone fares.

5/ Bus service by HRT was terminated by a strike that began January 1. The City and County of Honolulu commenced service March 1.

Source: HRT, Ltd., data provided by Hawaii State Department of Regulatory Agencies, Public Utilities Division; MTL, Inc., data provided by the City and County of Honolulu, Department of Transportation Services.

Table 547.-- BUS FARE CHRONOLOGY, FOR OAHU: 1961 TO 1988

[In dollars. Service was provided by Honolulu Rapid Transit, Ltd., from August 31, 1901 until December 31, 1970, and by the City and County of Honolulu beginning March 1, 1971. For earlier data, see *The State of Hawaii Data Book 1978*, table 305, pp. 273-274]

Effective date	Cash fares 1/		Tickets		Monthly passes	
	Adult	School	Adult	School	Adult	School
May 29, 1961	.25	.15	5/1.00	5/.50	...	...
March 1, 1971	.25	.15	...	...	...	...
March 2, 1971	.25	.10	...	...	...	...
June 9, 1972 2/ ...	.25, .50	.10, .25	...	...	...	...
March 15, 1974	.25	.10	...	...	...	...
November 1, 1979 ..	.50	.25	...	...	15.00	7.50
June 18, 1984 3/ ..	.60	.25	...	...	15.00	7.50

1/ In addition, there have been special fares for children, handicapped persons, senior citizens, service to and from Pearl Harbor, and the Stadium Express during many of these years.

2/ Zone fares initiated.

3/ Current fares as of September 12, 1988.

Source: Honolulu Rapid Transit Co., Ltd., records; City and County of Honolulu, Department of Transportation Services, records.

Table 548.-- PASSENGER CAR RENTAL AND LEASING (SIC 7512) ESTABLISHMENTS WITH PAYROLL, BY COUNTIES: 1982 AND 1986

Year	State total	Honolulu	Hawaii	Kauai	Maui
1982	79	39	14	10	16
1986	88	36	19	9	24

Source: U.S. Bureau of the Census, *County Business Patterns, Hawaii* (annual).

Table 549.-- AIRPORTS AND HELIPORTS, BY CONTROL, BY ISLANDS: DECEMBER 31, 1987

Island	Airports 1/				Heliports 2/	
	State		Military	Semi-private	State: commercial	Semi-private
	Commercial	General aviation				
State total	7	7	6	2	1	9
Hawaii 3/	2	2	1	-	-	4
Maui 4/	1	1	-	1	-	2
Kahoolawe	-	-	-	-	-	-
Lanai	1	-	-	-	-	-
Molokai	1	1	-	-	-	-
Oahu	1	2	3	-	1	-
Kauai	1	1	1	1	-	3
Niihau	-	-	-	-	-	-
Kure Atoll	-	-	1	-	-	-

1/ Excludes private airports (not available).

2/ Excludes military and private heliports (not available).

3/ Waimea-Kohala Airport reclassified from commercial to general aviation during 1987.

4/ West Maui Airport opened during 1987.

Source: Hawaii State Department of Transportation, Airports Division, records.

Table 550.-- AIRCRAFT OPERATIONS FOR SPECIFIED AIRPORTS: 1977 TO 1987

[An aircraft operation is an aircraft arrival or departure]

Year	Honolulu International Airport	General Lyman Field, Hilo	Keahole Airport	Kahului Airport	Lihue Airport	Molokai Airport 1/
1977	329,926	60,377	83,616	100,655	65,636	(NA)
1978	379,106	52,677	91,033	125,291	74,583	32,801
1979	412,739	51,703	92,235	127,477	71,033	72,024
1980	375,408	49,969	66,944	111,573	62,829	67,761
1981	339,359	53,274	57,488	102,760	59,404	61,876
1982	308,728	47,964	51,889	112,428	65,305	69,142
1983	333,038	54,470	66,581	124,288	71,739	54,882
1984	343,818	62,543	83,320	142,311	100,992	53,513
1985	357,511	61,225	93,879	157,231	131,755	56,048
1986	368,049	61,514	81,467	174,560	143,905	52,268
1987	385,275	80,123	67,497	165,920	134,495	50,829

NA Not available.

1/ FAA tower opended July 13, 1978.

Source: Hawaii State Department of Transportation, Airports Division, records.

Table 551.-- AIRCRAFT OPERATIONS, BY TYPE OF AIRCRAFT, AT MAJOR STATE OWNED AIRPORTS: 1987

Airport	All movements	Air carrier	Air taxi	General aviation	Military
Honolulu International ..	385,275	216,044	62,172	83,558	23,501
Gen. Lyman	80,123	20,920	9,888	29,354	19,961
Kahului	165,920	76,368	54,845	26,534	8,173
Lihue	134,495	44,599	70,813	10,730	8,353
Keahole	67,497	29,171	17,866	10,628	9,832
Molokai	50,829	5,916	34,473	8,334	2,106

Source: Hawaii State Department of Transportation, Airports Division, records.

Table 552.-- RANK OF HONOLULU INTERNATIONAL AIRPORT IN OPERATIONS AND ENPLANED PASSENGERS: 1985 AND 1986

Subject	Rank 1/		Number	
	1985	1986	1985	1986
Total aircraft operations	21	21	357,509	367,938
Air carrier operations	21	19	167,159	191,890
Total enplaned passengers 2/ ...	19	17	5,979,712	7,352,027

1/ Among all FAA-operated airport traffic control towers in United States.

2/ For large scheduled certificated air carriers, both scheduled and unscheduled operations.

Source: FAA Statistical Handbook of Aviation for 1985 (pp. 30 and 77) and 1986 (pp. 30 and 97).

Table 553.-- TRANSPACIFIC AND INTERISLAND AIR CARRIERS SERVING HAWAII: 1985 TO 1988

[As of June 30. Includes both scheduled and nonscheduled services]

Service	1985 1/	1986 1/	1987 2/	1988 2/
All air carriers 3/	32	32	33	34
Transpacific	30	30	27	27
Domestic	17	18	14	12
Foreign	13	12	13	15
Interisland	4	4	8	9
Passenger carriers	3	3	8	7
Cargo and mail only	1	1	-	2

1/ Excludes commuter lines and other air taxi service.

2/ Includes commuter lines and other air taxi service.

3/ Unduplicated totals. Two carriers provided both transpacific and interisland service in all four years.

Source: Hawaii State Department of Transportation, Airports Division, records.

Table 554.-- CIVIL FLYING: 1983 TO 1986

Item	1983	1984	1985	1986
Aircraft facilities, Dec. 31	51	51	50	51
Airports	37	37	36	34
Heliports	14	14	14	17
Public aircraft facilities, Dec. 31 ...	14	14	16	18
Paved and lighted facilities, Dec. 31 .	12	12	12	12
Large aircraft in operation, Dec.	32	38	49	54
Aloha Airlines, Inc.	8	9	8	11
Hawaiian Airlines, Inc.	13	18	21	24
Mid Pacific Airlines, Inc.	11	11	20	19
General aviation: 1/				
Active civil aircraft, Dec.	381	463	348	366
Standard error	152	143	109	118
Hours flown (1,000)	97	206	137	182
Standard error (1,000)	34	95	56	81
Active personnel, Dec. 31:				
Pilots, except instructors	3,224	3,187	3,256	3,327
Flight instructors	260	303	267	246
Nonpilot airmen 2/	3,099	3,191	2,498	2,609

1/ Aircraft based in Hawaii. Data based on samples with specified standard errors.

2/ Mechanics, parachute riggers, ground instructors, dispatchers, control tower operators, flight navigators, and flight engineers.

Source: U.S. Department of Transportation, Federal Aviation Administration, FAA Statistical Handbook of Aviation (annual).

Table 555.-- CHARACTERISTICS OF HAWAII-BASED CERTIFICATED ROUTE AIRLINES: 1985 AND 1986

[Scheduled service data for Aloha Airlines, Inc., Hawaiian Airlines, Inc., and Mid Pacific Airlines, Inc. Includes interisland, interstate, and international flights]

Subject	1985	1986
Number of airlines	3	3
Aircraft revenue departures (1,000)	121.5	155.3
Aircraft revenue miles (1,000)	17,490	26,696
Average airborne speed (miles per hour)	284	314
Average available seats per aircraft mile flown	138.7	171.7
Revenue passengers:		
Enplanements (1,000)	6,876	8,283
Load factor (percent)	59.4	65.4
Revenue ton-miles (1,000):		
Freight	5,802	13,546
Mail	1,847	2,560
Number of employees	2,731	4,335
Operating revenues ($1,000)	251,521	381,915
Operating profit or loss ($1,000)	2,919	4,147
Average passenger revenues per revenue passenger-mile (cents)	14.8	10.6
Average freight revenues per revenue ton-mile (dollars)	1.66	1.42

Source: U.S. Department of Transportation, Research and Special Programs Administration, unpublished data.

Table 556.-- TRANSPACIFIC AND INTERISLAND AIR PASSENGER MOVEMENTS: 1970 TO 1987

[Calendar years. Data include both revenue and non-revenue passengers]

Year	Transpacific passengers			Inter-island passenger arrivals 1/
	Arrivals	Departures	Through	
1970 ..	2,190,809	2,158,577	893,890	2,992,777
1971 ..	2,296,119	2,304,570	729,237	3,380,031
1972 ..	2,540,472	2,550,199	733,362	4,093,338
1973 ..	2,866,003	2,913,446	870,378	4,809,097
1974 ..	3,009,769	2,964,992	885,122	5,174,914
1975 ..	3,181,580	3,134,774	956,576	5,321,616
1976 ..	3,496,645	3,432,908	816,915	5,873,138
1977 ..	3,667,756	3,615,717	714,150	6,413,847
1978 ..	4,131,466	4,054,544	854,276	7,341,815
1979 ..	4,245,032	4,148,645	971,452	7,578,877
1980 ..	4,270,633	4,174,739	1,118,987	6,737,894
1981 ..	4,290,752	4,292,159	1,032,264	6,724,113
1982 ..	4,669,747	4,641,716	882,832	7,327,447
1983 ..	4,760,459	4,714,689	777,490	7,037,687
1984 ..	5,263,213	5,261,373	727,947	7,632,239
1985 ..	5,317,862	5,293,528	858,501	7,878,598
1986 ..	6,041,078	6,083,508	841,241	8,340,048
1987 ..	6,265,211	6,317,747	1,109,850	8,802,594

1/ Air taxi service was seriously underreported before 1977.

Source: Hawaii State Department of Transportation, Airports Division, records.

Table 557.-- PASSENGERS, CARGO, AND MAIL, BY AIRPORT: 1987

Airport	Passengers 1/		Cargo (tons)		Mail (tons)	
	Enplaned	Deplaned	Enplaned	Deplaned	Enplaned	Deplaned
OVERSEAS						
Total	6,317,747	6,265,211	117,049	106,359	11,780	14,502
Honolulu	5,756,190	5,684,126	110,719	96,702	11,780	14,502
General Lyman ...	460	453	-	-	-	-
Kahului	437,617	437,617	1,331	6,715	-	-
Keahole	98,649	98,663	4,899	2,802	-	-
Lihue	36,064	44,352	100	140	-	-
INTERISLAND						
Total	8,802,594	8,802,594	61,241	61,241	8,781	8,781
Honolulu	3,898,325	3,931,551	39,617	19,459	4,982	3,521
General Lyman ...	590,793	611,870	12,493	8,682	1,122	1,251
Waimea-Kohala ...	9,222	8,903	-	-	-	-
Keahole	815,184	791,094	3,162	5,185	720	985
Kahului	1,814,090	1,818,413	3,307	17,480	1,272	2,041
Hana	10,848	11,211	-	-	-	-
Molokai	162,300	164,591	233	254	53	5
Kalaupapa	5,051	4,659	-	-	-	-
Lanai	28,152	29,131	11	39	7	-
Lihue	1,304,441	1,288,292	2,374	10,011	625	978
Other airports 2/	164,188	142,879	44	131	-	-

1/ Revenue and non-revenue, excluding Military Airlift Command (MAC). Also excludes overseas passengers in transit (1,109,850, all through Honolulu International Airport).

2/ Princeville and Waikoloa.

Source: Hawaii State Department of Transportation, Airports Division, records.

Table 558.-- AIR CARGO AND AIRMAIL: 1982 TO 1987

[In thousands of pounds]

Calendar year	Overseas air cargo		Overseas airmail		Interisland	
	Out-going	In-coming	Out-going	In-coming	Air cargo: incoming	Airmail: incoming
1982	155,278	105,388	21,280	25,006	114,038	15,014
1983	174,582	136,354	23,620	28,288	109,828	16,024
1984	196,215	153,654	23,356	29,497	111,472	16,282
1985	180,470	150,295	21,657	22,119	101,700	16,072
1986	200,255	184,894	22,842	23,725	114,657	16,913
1987	234,098	212,717	23,560	29,004	122,481	17,561

Source: Hawaii State Department of Transportation, Airports Division, records.

Table 559.-- HELICOPTER TOURS: 1977 TO 1988

Subject	1977	1982	1985	1987	1988
Companies	9	14	25	36	36
Aircraft	15	26	48	71	74

Source: Hawaii Helicopter Operators Association, records.

Table 560.-- FLIGHTS SCHEDULED TO DEPART HONOLULU INTERNATIONAL AIRPORT, BY DESTINATION: APRIL 24-30, 1988

Destination	Flights during week		
	Total	Final destination	Intermediate point
Total	1/ 600	600	290
Tokyo	53	30	23
Hong Kong	14	7	7
Manila	12	12	-
Singapore	10	10	-
Seattle	21	7	14
San Francisco	89	54	35
Los Angeles	168	102	66
Denver	16	14	2
Dallas/Fort Worth	33	-	33
Chicago	41	14	27
Atlanta	28	28	-
New York	50	50	-
All others	355	272	83

1/ Unduplicated total.
Source: Greeters of Hawaii, Jiffisked ... April 3-30, 1988.

Table 561.-- AIRLINE PASSENGER ORIGINS AND DESTINATIONS: 1986

[Year ended December 31, 1986. Top city pairs originating or terminating passengers and revenue passenger-miles, ranked by passengers. Data limited to domestic operations in scheduled service. Figures are combined totals in both directions]

City pair in both directions 1/ (in order of passenger rank)	Inter-city distance (miles)	Passengers		Passenger-miles	
		U.S. rank	Number (1,000)	U.S. rank	Number (1,000)
Honolulu-Kahului	100	19	1,091	442	109,490
Honolulu-Los Angeles	2,568	20	1,084	3	2,787,966
Honolulu-San Francisco	2,399	35	703	9	1,699,292
Honolulu-Lihue	102	35	757	610	78,668
Honolulu-Kona	169	74	517	532	90,630
Honolulu-New York	4,971	190	255	16	1,276,938
Honolulu-Chicago	4,251	261	193	29	827,101
Honolulu-Seattle	2,678	292	172	68	482,500
Honolulu-Las Vegas	2,762	354	140	88	395,101
Honolulu-Boston	5,095	627	79	84	415,645
Honolulu-Washington	4,828	666	75	94	368,951

1/ Includes all cities in Hawaii included in top 100 U.S. city pairs, as ranked either by number of passengers or number of passenger-miles.

Source: U.S. Department of Transportation, Research and Special Programs Administration, records.

Table 562.-- REGULAR ONE-WAY FARES AND SCHEDULED FLIGHT TIMES FOR FLIGHTS BY UNITED AIRLINES BETWEEN SAN FRANCISCO AND HONOLULU: 1980 TO 1988

[Updated to November 30, 1988]

Effective date of change in fare	Regular one-way fares, including taxes (dollars)			Flight time 1/ (hours, min.)
	First class	Coach, weekend	Coach weekday	
1980: Jan. 1	302.12	209.08	199.08	5:02
June 1	319.13	221.09	211.08	5:02
Aug. 1	351.14	243.10	233.09	5:02
Oct. 1	365.11	252.08	252.08	5:02
1981: Jan. 20 ...	384.12	265.08	265.08	5:02
Mar. 31 ...	415.12	286.09	286.09	5:02
June 17 ...	425.13	296.09	296.09	5:02
Oct. 1	392.12	280.08	280.08	5:00
1982: Mar. 1	412.12	219.07	219.07	5:00
Apr. 1	412.12	310.09	310.09	5:00
June 1	412.12	328.10	328.10	5:00
Sept. 1 ...	415.16	331.13	331.13	5:00
1983: June 15 ...	415.16	353.14	353.14	5:00
1984: Sept.	415.00	353.14	353.14	5:00
Oct.	415.00	353.00	353.00	5:02
Dec.	454.00	364.00	364.00	5:02
1986: Nov. 14 ...	576.00	459.00	459.00	5:03
1987: Apr. 11 ...	588.00	469.00	469.00	5:00
June 5	598.00	479.00	479.00	5:00
June 30 ...	605.00	486.00	486.00	5:00
Aug. 7	613.00	494.00	494.00	5:00

1/ Average scheduled flight time eastbound and westbound, by B-747 or DC-10 aircraft. Flight time varies seasonally.

Source: United Airlines, records.

Table 563.-- REGULAR ONE-WAY FARES AND SCHEDULED FLIGHT TIMES FOR SPECIFIED INTERISLAND FLIGHTS BY HAWAIIAN AIRLINES, BY TYPE OF AIRCRAFT: 1982 TO 1988

[Updated to October 17, 1988]

Effective date of change in fare	Honolulu-Lihue		Honolulu-Kahului		Honolulu-Hilo	
	DC-9 1/	DASH-7	DC-9 1/	DASH-7	DC-9 1/	DASH-7
FARES 2/						
1982: May 1	46.00	46.00	46.00	46.00	56.00	56.00
June 1	48.00	48.00	48.00	48.00	58.00	58.00
Aug. 1	53.00	53.00	53.00	53.00	63.00	63.00
Sept. 1	54.50	54.50	54.50	54.50	65.00	65.00
1983: Feb. 1	45.00	45.00	45.00	45.00	45.00	45.00
July 1	49.95	49.95	49.95	49.95	49.95	49.95
Oct. 30	49.95	29.95	49.95	29.95	49.95	29.95
Dec. 16	49.95	41.95	49.95	41.95	49.95	41.95
Dec. 22	49.95	33.95	49.95	33.95	49.95	33.95
1984: Jan. 20	49.95	41.95	49.95	41.95	49.95	41.95
May 28	49.95	43.95	49.95	43.95	49.95	43.95
Nov. 15	52.95	46.95	52.95	46.95	52.95	46.95
Dec. 16	52.95	37.95	52.95	37.95	52.95	37.95
1985: Jan. 7	52.95	34.95	52.95	34.95	52.95	34.95
Mar. 11	52.95	36.95	52.95	36.95	52.95	36.95
Apr. 28	52.95	38.95	52.95	38.95	52.95	38.95
July 1	44.95	37.95	44.95	37.95	44.95	37.95
Aug. 1	46.95	38.95	46.95	38.95	46.95	38.95
1987: Mar. 1	48.95	46.95	48.95	46.95	48.95	46.95
FLIGHT TIMES 3/						
1982-1984	26	34	27	34	40	60
1985-1987	25	33	26	33	40	58
1988	27	37	27	37	41	67

1/ DC-9-50 and DC-9-80 from May 1981 through 1985; DC-9-15, DC-9-50, and DC-9-80 thereafter.

2/ Total regular one-way fare, including taxes and other charges, in dollars.

3/ Average non-stop scheduled flight time eastbound and westbound, in minutes.

Source: Hawaiian Airlines, records.

Table 564.-- STATE COMMERCIAL HARBORS: 1988

Island and harbor	Harbor entrance depth (feet)	Harbor basin			Piers (linear feet)	Storage area (1,000 square feet)	
		Depth (feet)	Length (feet)	Width (feet)		Shedded	Open
Hawaii:							
Hilo	35	35	2,300	1,400	2,787	122	446
Kawaihae	40	35	1,500	1,450	1,012	23	166
Maui:							
Kahului	35	35	2,400	2,050	3,019	124	586
Molokai:							
Kaunakakai	23	23	1,500	600	691	10	123
Oahu:							
Honolulu:							
Main	45	40	3,300	1,520	28,007	1,779	7,770
Kapalama		40	3,400	1,000			
Barbers Point .	42	38	2,100	1,800	-	-	-
Kauai:							
Nawiliwili	40	35	1,950	1,540	1,216	66	247
Port Allen	35	35	1,500	1,200	1,200	35	32

Source: Hawaii State Department of Transportation, Harbors Division, unpublished data, September 12, 1988.

Table 565.-- UNDOCUMENTED STATE-REGISTERED VESSELS: DECEMBER 31, 1987

Subject	Number	Subject	Number
Certificates outstanding .	14,008	Type of vessel:	
		Cabin motorboat	1,914
Length:		Open motorboat	5,169
Under 16 feet	5,620	Runabout	2,717
16 to less than 20 feet	4,048	Sail/inboard	642
20 to less than 40 feet	4,109	Sail/outboard	562
Over 40 feet	206	Sail only	1,163
Dealers, manufacturers	25	Motor vessel over 65 feet .	6
Median (feet)	17.4	Other	1,835
Hull material:		Uses:	
Wood	1,762	Pleasure	11,986
Fiberglass	10,640	Commercial fishing	1,205
Metal	496	Charter fishing	18
Inflatable	822	Commercial passenger	220
Other	263	Other commercial	42
		Livery	207
Propulsion:		Dealer or manufacturer	66
Inboard	963	Youth group	29
Outboard	8,150	Government	175
Inboard/outboard	2,085	Other	60
Sail/inboard	611		
Sail/outboard	623	Island kept:	
Sail only	1,165	Hawaii	1,982
Other	406	Kauai	1,148
		Lanai	49
Type of storage:		Maui	1,275
On water	2,605	Molokai	182
On land	11,403	Oahu	9,372

Source: Hawaii State Department of Transportation, Harbors Division, Report of Undocumented Vessel Registration (annual).

Table 566.-- DOCUMENTED AND NUMBERED VESSELS REGISTERED IN HAWAII: 1978 TO 1988

Category	1978	1984	1985	1986	1987	1988
Documented 1/	987	1,203	1,306	1,348	1,389	1,380
Numbered 2/	13,695	13,122	13,443	14,052	14,008	...

1/ Vessels documented under the laws of the United States with the U.S. Coast Guard in Hawaii. All vessels over five net tons, used for commercial purposes, must be documented. In addition, yachts over five net tons may be documented. As of December 31, 1978 and June 30 thereafter.

2/ Non-documented numbered vessels registered with the Hawaii State Department of Transportation. Any mechanically propelled boat (including those with auxiliary engines), and any boat powered solely by sail if over eight feet in length, must be numbered. All data as of December 31.

Source: U.S. Coast Guard, Marine Safety Office, records; Hawaii State Department of Transportation, Report of Undocumented Vessel Registration (annual).

Table 567.-- BOATING ACCIDENTS: 1985 TO 1987

Year	Number of accidents		Number of persons		Number of vessels involved	Amount of damage ($1,000)
	Total	Fatal	Killed	Injured non-fatally		
1985	41	2	5	10	50	417.3
1986	54	3	3	14	69	293.0
1987	62	1	2	18	76	720.2

Source: U.S. Department of Transportation, Coast Guard, Boating Statistics (annual).

Table 568.-- VESSELS ARRIVING AT SPECIFIED HARBORS: 1986

[Excludes domestic fishing craft]

Harbor	Total inbound vessels	By type of vessel		
		Self propelled vessels		
		Passenger and dry cargo	Tanker	Towboat or tugboat
Hilo	756	38	4	296
Kawaihae	451	6	2	165
Hana	2	-	-	1
Kahului	1,177	28	8	437
Kaunakakai	668	-	-	295
Kalaupapa	8	-	-	4
Honolulu	6,715	2,272	51	1,783
Barbers Point	535	1	76	350
Nawiliwili	607	6	-	212
Port Allen	12	-	1	7

Harbor	By type of vessel -- con.		By draft	
	Non-self propelled vessels			
	Dry cargo	Tanker	18 feet and less	19 feet and more
Hilo	347	71	713	43
Kawaihae	271	7	439	12
Hana	1	-	2	-
Kahului	625	79	1,104	73
Kaunakakai	366	7	(NA)	(NA)
Kalaupapa	4	-	8	-
Honolulu	2,174	435	6,025	690
Barbers Point	6	102	459	76
Nawiliwili	360	29	600	7
Port Allen	1	3	(NA)	(NA)

NA Not available.

Source: U.S. Department of the Army, Corps of Engineers, Waterborne Commerce of the United States, Calendar Year 1986, Part 4 (1988), pp. 106-107.

Table 569.-- SHIP ARRIVALS AT THE PORT OF HONOLULU: 1977 TO 1987

[Years ended June 30]

Year	Overseas vessels		Interisland vessels	
	Number	Gross tonnage	Number	Gross tonnage
1977	1,589	12,568,896	2,700	2,249,446
1978	1,651	12,676,469	1,981	1,947,893
1979	1,757	12,101,936	2,875	2,838,609
1980	1,963	10,483,989	2,338	2,572,778
1981	1,968	10,959,161	2,597	2,670,405
1982	1,943	9,604,985	2,496	2,598,632
1983	1,775	10,406,544	2,662	2,623,321
1984	1,686	10,397,905	2,660	3,649,085
1985	1,749	9,398,179	2,412	4,480,660
1986	1,825	9,450,373	2,697	4,913,219
1987	2,080	9,974,948	2,848	5,200,667

Source: Hawaii State Department of Transportation, Harbors Division, records.

Table 570.-- OVERSEAS AND INTERISLAND PASSENGER ARRIVALS AND DEPARTURES, FOR HONOLULU HARBOR: 1983 TO 1988

[Fiscal years ended June 30]

Type of passenger	1983	1984	1985	1986	1987	1988
Overseas:						
In	9,559	9,492	5,337	6,537	8,681	5,815
Out	9,679	5,906	5,276	6,190	8,103	5,350
Interisland:						
In	35,529	58,571	72,665	84,943	71,049	77,731
Out	33,638	59,293	74,304	82,895	69,337	71,804

Source: Hawaii State Department of Transportation, Harbors Division, records.

Table 571.-- TRANSPACIFIC AND INTERISLAND SURFACE REVENUE PASSENGERS: 1982 TO 1987

Year	Transpacific passengers 1/			Inter-island passenger arrivals 2/
	Disembarking	Embarking	Intransit	
1982	542	461	6,785	39,057
1983	741	740	8,419	56,073
1984	726	361	6,692	78,443
1985	1,360	1,479	3,249	69,864
1986	828	370	6,189	80,127
1987	870	338	6,647	73,794

1/ Data refer to years ended June 30 through 1983 and calendar years thereafter. Data limited to the Port of Honolulu.

2/ Calendar year statistics. Data exclude interisland travel by transpacific cruise ships.

Source: TheoDavies Marine Agencies, records, and American Hawaii Cruises, records.

Table 572.-- OVERSEAS AND INTERISLAND SHIPPING: 1981 TO 1986

[In short tons]

Calendar year	Overseas cargo			Interisland cargo		
	Total	In	Out	Total	In	Out
1981 ...	11,683,330	9,389,458	2,293,872	7,230,395	3,691,297	3,539,098
1982 ...	10,503,229	8,168,339	2,334,890	7,204,456	3,697,785	3,506,671
1983 ...	11,853,502	9,371,317	2,482,185	8,337,860	4,285,416	4,052,444
1984 ...	11,506,043	8,972,870	2,533,173	8,973,092	4,530,456	4,442,636
1985 ...	11,647,021	9,098,694	2,548,327	7,839,743	3,836,113	4,003,630
1986 ...	10,521,866	8,451,641	2,070,225	8,464,107	4,241,904	4,222,203

Source: U.S. Department of the Army, Corps of Engineers, Waterborne Commerce of the United States (annual) and printouts, as tabulated by the Hawaii State Department of Transportation, Harbors Division.

Table 573.-- FREIGHT AND PASSENGER TRAFFIC FOR SPECIFIED HARBORS: 1976 TO 1986

Subject and year	Hilo	Kawaihae	Kahului	Hono-lulu 1/	Barbers Point	Nawiliwili
FREIGHT TRAFFIC 2/ (SHORT TONS)						
1976	995,544	263,562	1,276,424	7,189,538	6,593,497	460,900
1977	1,013,430	318,197	1,301,095	6,881,556	6,630,994	557,798
1978	1,272,734	502,451	1,922,112	7,750,537	6,306,580	765,877
1979	1,220,438	447,521	1,473,307	7,463,663	6,154,541	757,899
1980	1,102,019	518,116	1,441,524	7,646,270	5,725,722	785,212
1981	1,441,590	432,704	1,551,944	8,269,671	5,589,741	906,595
1982	1,381,996	441,130	1,483,955	7,593,097	5,707,386	808,153
1983	1,522,442	441,458	1,842,568	8,039,850	7,051,230	1,008,699
1984	1,570,528	545,508	1,889,204	8,469,971	6,564,687	944,770
1985	1,318,518	526,639	1,516,509	7,986,133	6,751,709	933,477
1986	1,198,692	592,018	1,626,650	8,603,760	5,629,312	745,396
PASSENGERS 3/						
1976	1,313	-	1,307	1,390,524	-	40,674
1977	8,381	-	8,390	303,291	3,504	70,063
1978	3,207	-	3,879	183,721	4,441	6,384
1979	-	-	-	311,899	-	-
1980	-	-	-	547,242	-	-
1981	-	-	-	521,624	-	-
1982	-	-	-	465,466	-	-
1983	-	-	-	688,689	-	-
1984	-	-	-	741,922	-	-
1985	-	-	-	1,102,398	-	-
1986	-	-	-	708,268	-	-

1/ For discussion of the accuracy of these data, see the Data Book 1982, table 441.

2/ Excludes cargo carried by Army and Navy vessels and cargo in transit.

3/ Total arrivals and departures for transpacific, interisland, and local travel.

Source: U.S. Department of the Army, Corps of Engineers, Waterborne Commerce of the United States, Calendar Year 1986, Part 4 (1988), pp. 28-35.

Table 574.-- FREIGHT TRAFFIC, BY COMMODITIES, FOR SPECIFIED HARBORS: 1986

[In short tons. Commodities under 125,000 tons not shown separately]

Harbor and commodity	Total 1/	Foreign		Interstate		Interisland	
		Imports	Exports	Receipts	Shipments	Receipts	Shipments
Hilo	1,198,692	18,315	28,259	14,158	149,400	683,906	304,654
Sugar	149,459	-	-	-	149,400	59	-
Fabricated metal products	281,672	-	-	6	-	143,898	137,768
Kawaihae	592,018	10,000	15,813	5,229	137,365	250,419	173,192
Sugar	137,365	-	-	-	137,365	-	-
Kahului	1,626,650	43,379	74,485	9,203	145,369	864,184	486,030
Sugar	145,687	-	-	-	145,260	26	401
Fabricated metal products	310,335	2	-	50	-	189,195	121,088
Motor vehicles, parts, equipment	156,821	2,700	-	5	-	102,163	51,953
Barbers Point	5,629,312	2,911,284	200,650	2,211,645	115,362	29,812	159,334
Crude petroleum	4,644,940	2,911,258	-	1,733,682	-	-	-
Distillate fuel oil	136,361	-	-	100,774	35,587	-	-
Residual fuel oil	725,369	-	186,818	331,803	44,734	29,812	130,977
Honolulu	8,603,760	632,632	150,514	2,573,465	951,759	1,769,991	2,350,094
Fresh fruits	426,542	1,481	57	17,146	87,649	318,361	1,848
Crude petroleum	420,343	77,283	-	343,060	-	-	-
Sand, gravel, crushed rock	195,010	22,335	-	249	84,000	64,681	25,745
Meat, fresh, chilled, frozen	139,524	6,142	1,067	108,785	2,321	1,243	19,966
Veg. and prep. nec	166,808	8,017	139	81,907	4,701	43,892	28,143
Prep. fruit & veg. juice, nec	398,930	5,456	3,764	6,606	257,582	124,963	559
Animal feeds	141,131	20,718	324	56,370	-	7,549	56,170

Continued on next page.

Table 574.-- FREIGHT TRAFFIC, BY COMMODITIES, FOR SPECIFIED HARBORS: 1986 - Con.

Harbor and commodity	Total 1/	Foreign		Interstate		Interisland	
		Imports	Exports	Receipts	Shipments	Receipts	Shipments
Honolulu - Con.							
Sugar	126,689	40	510	1,018	124,632	401	88
Molasses	275,392	-	-	5,674	168,970	100,748	-
Alcoholic beverages	196,630	6,872	576	151,304	299	26	37,553
Misc. food products	256,618	5,342	2,909	27,501	3,161	99,261	118,444
Lumber	190,375	342	2,135	162,863	795	1,932	22,308
Gasoline	203,845	3,606	19,693	24,400	-	-	151,878
Jet fuel	245,079	112,232	-	95,518	-	-	36,680
Residual fuel oil	340,215	-	13,380	7,176	-	79,892	74,203
Building cement	166,238	84,855	1	4,380	-	178	76,824
Fabricated metal prod. ..	1,125,994	7,250	458	88,932	3,017	435,005	591,332
Motor vehicles, parts, equipment	612,960	44,355	624	80,427	35,326	121,079	331,149
Nawiliwili	745,396	5,522	1	16,751	89,200	423,170	210,752
Fabricated metal products	210,919	-	-	383	-	109,289	101,247
Kaumalapau	330,342	-	-	53,773	276,569	-	-
Fresh fruits	274,339	-	-	95	274,244	-	-
Hana	21	-	-	21	-	-	-
Pearl	(NA)	(NA)	(NA)	-	23,298	1,621	199,070
Kalaupapa	1,569	-	-	1,170	399	-	-
Kaunakakai	246,467	-	-	58	-	154,385	92,024
Port Allen	11,767	-	-	-	-	11,767	-

NA Not available.

1/ Includes internal receipts and local traffic, not separately shown. Internal receipts amounted to 1,225 tons, all at Barbers Point. Local traffic amounted to 121,258 tons, all at Honolulu.

Source: U.S. Department of the Army, Corps of Engineers, Waterborne Commerce of the United States, Calendar Year 1986, Part 4 (May 1988), pp. 28-35, and unpublished printouts.

Section 19

AGRICULTURE

This section presents statistics on agricultural land, farms, crops, livestock, dairy products, poultry, and aquaculture. Related information appears in Sections 6 (on land use), 12 and 15 (agricultural employment and earnings), and 22 (food processing).

There were 4,400 farms in Hawaii in 1987, with a total area of 1.95 million acres. The value of crop sales in 1987 was $469 million, or 80 percent higher than the total for 1977. Livestock sales amounted to $88 million, or 35 percent more than the 1977 level. Combined crop and livestock sales in 1987 ranged from $63 million in Kauai County to $181 million on the Big Island. Major crops were sugar ($218 million in sales, up 51 percent over the decade), pineapple ($99 million, or 59 percent over the 1977 total), flowers and nursery products ($56 million, or 298 percent more than in 1977), and macadamia nuts ($36 million, up 347 percent). Diversified crops, defined as all crops other than sugar and pineapple, rose from $54 million in 1977 to $152 million in 1987, or approximately 183 percent. About 670 farms sold $56 million of flowers and nursery products in 1987, chiefly anthuriums, potted foliage, and orchids. Important products of livestock farms as of 1987 included cattle ($27 million in sales), milk ($31 million), and eggs ($14 million). In 1987, Hawaii produced 36 percent of the fresh market vegetables consumed locally, 28 percent of the fresh market fruits, 31 percent of the beef and veal, 19 percent of the chickens, and 84 percent of the eggs.

Aquaculture has been growing in importance in recent years, with an aggregate value rising from $1,655,000 in 1980 to $6.3 million in 1987. Shellfish production amounted to 1.2 million pounds in 1987, with a value of $4.5 million.

Statistics on Hawaiian agriculture exclude pakalōlō (marijuana) and other illicit plants. Authorities confiscated $1.9 billion worth of marijuana in 1987, but the proportion escaping detection is unknown.

Important sources for data on agriculture include the United States Census of Agriculture, most recently published for 1982, the annual report on Statistics of Hawaiian Agriculture issued by the Hawaii Agricultural Statistics Service, and data compiled by the Hawaiian Sugar Planters' Association and the Aquaculture Development Program of the Department of Land and Natural Resources. Agricultural data for earlier years are summarized in Historical Statistics of Hawaii, Section 13. National statistics appear in Section 23 of the Statistical Abstract of the United States: 1988.

Table 575.-- FARMS, LAND IN FARMS, AND LAND USE: 1982 AND 1978

Subject		1982	1978
Farms	number	4,595	4,310
Land in farms	acres	1,957,501	1,988,282
Average size of farm	acres	426	461
Value of land and buildings:			
Average per farm	dollars	778,471	413,948
Average per acre	dollars	1,826	897
Farms by size:			
1 to 9 acres		2,743	2,527
10 to 49 acres		1,261	1,211
50 to 179 acres		320	296
180 to 499 acres		126	146
500 to 999 acres		33	24
1,000 to 1,999 acres		33	32
2,000 acres or more		79	74
Land in farms according to use:			
Total cropland	farms	3,836	3,565
	acres	346,113	333,262
Harvested cropland	farms	3,538	3,299
	acres	155,960	158,639
Cropland used only for pasture or grazing	farms	400	272
	acres	33,557	27,191
Other cropland	farms	855	1,089
	acres	156,596	147,432
Woodland, including woodland pastured	farms	148	146
	acres	117,270	145,802
Pastureland and rangeland other than cropland and woodland pastured	farms	743	611
	acres	1,132,849	1,143,095
Land in house lots, ponds, roads, wasteland, etc.	farms	2,227	1,859
	acres	361,269	366,123
Irrigated land	farms	1,544	1,493
	acres	145,982	159,323

Source: U.S. Bureau of the Census, 1982 Census of Agriculture, Geographic Area Series, Hawaii, State and County Data, AC82-A-11 (September 1984), Chapter 1, tables 1 and 4.

Table 576.-- CHARACTERISTICS OF FARM OPERATORS: 1982 AND 1978

Subject	1982	1978
Farms by type of organization:		
Individual or family .... number	3,852	3,614
acres	481,212	656,332
Partnership .... number	351	326
acres	130,761	222,668
Corporation:		
Family held .... number	272	233
acres	507,280	377,595
Other than family held .... number	80	93
acres	492,941	595,644
Other -- cooperative, estate or trust, institutional, etc. number	40	44
acres	345,307	136,043
Operators by principal occupation and residence:		
Farming 1/..................................	2,565	2,239
Residence on farm operated	1,629	1,287
Residence not on farm operated	657	516
Other than farming 1/....................	2,030	2,071
Residence on farm operated	1,043	890
Residence not on farm operated	779	660
Average age of operators	52.7	52.7
Female operators:		
Farms .... number	615	579
Land in farms .... acres	129,674	132,173
Operators reporting days of work off farm:		
Any	2,534	2,495
100 days or more	2,024	1,878

[1/] Components do not sum to category total because of non-reporting.

Source: U.S. Bureau of the Census, 1982 Census of Agriculture, Preliminary Report, Hawaii, AC82-A-15-000(P) (January 1984), table 2, and 1982 Census of Agriculture, Geographic Area Series, Hawaii, State and County Data, AC82-A-11 (September 1984), Chapter 1, tables 5 and 46.

Table 577.-- GENERAL EXCISE TAX BASE FOR PRODUCING: 1977 TO 1987

[In thousands of dollars. Data are on a cash basis accounting]

Year 1/	Amount	Year 1/	Amount	Year 1/	Amount
1977 2/	136,869	1981	176,582	1985	262,791
1978 2/	151,955	1982	173,891	1986	250,954
1979	156,873	1983	220,298	1987	274,202
1980	143,694	1984	242,641		

1/ Calendar year in which reported, including "prior years" reports. Income received in December is reported the following January, hence these annual totals generally refer to an "income year" ended November 30.

2/ Partly estimated.

Source: Hawaii State Department of Taxation, "General Excise and Use Tax Base" (annual tabular release).

Table 578.-- MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD, BY COUNTIES: 1982 AND 1978

Year	State total	Hawaii	Honolulu	Kauai	Maui
Total sales ($1,000):					
1982	558,608	206,427	144,028	70,957	137,196
1978	419,251	148,399	118,608	48,679	103,564
Sales per farm (dollars):					
1982	121,569	81,302	147,570	173,066	204,771
1978	97,274	65,490	112,639	131,920	166,502

Source: U.S. Bureau of the Census, 1982 Census of Agriculture, Geographic Area Series, Hawaii, State and County Data, AC82-A-11 (September 1984), Chapter 2, table 3.

Table 579.-- FARMS, LAND IN FARMS, AND LAND USE, FOR COUNTIES: 1982

Subject		Hawaii	Hono-lulu	Kauai	Maui 1/
Farms	number	2,539	976	410	670
Land in farms	acres	1,172,448	125,932	255,981	403,140
Average size of farm	acres	462	129	624	602
Value of land and buildings:					
Average per farm	dollars	639,822	389,732	1,833,704	1,225,224
Average per acre	dollars	1,385	3,017	2,930	2,036
Farms by size:					
1 to 9 acres		1,468	768	191	316
10 to 49 acres		746	141	136	238
50 to 179 acres		178	27	51	64
180 to 499 acres		68	17	16	25
500 to 999 acres		21	8	1	3
1,000 to 1,999 acres		13	8	7	5
2,000 acres or more		45	7	8	19
Land in farms according to use:					
Total cropland	farms	2,286	757	286	507
	acres	135,796	50,614	51,868	107,835
Harvested cropland	farms	2,123	732	240	443
	acres	59,629	(D)	24,039	(D)
Cropland used only for pasture or grazing	farms	195	32	77	96
	acres	17,438	(D)	2,670	(D)
Other cropland	farms	514	142	78	121
	acres	58,729	22,696	25,159	50,012
Woodland, including woodland pastured	farms	80	22	13	33
	acres	80,103	20,366	1,636	15,165
Pastureland and rangeland other than cropland and woodland pastured	farms	339	84	145	175
	acres	788,077	27,873	108,759	208,140
Land in house lots, ponds, roads, wasteland, etc.	farms	1,109	475	251	392
	acres	168,472	27,079	93,718	72,000
Irrigated land	acres	11,870	36,131	34,414	63,567

D Withheld to avoid disclosing data for individual farms.

1/ Includes Kalawao (no farms in 1982).

Source: U.S. Bureau of the Census, 1982 Census of Agriculture, Geographic Area Series, Hawaii, State and County Data, AC82-A-11 (September 1984), Chapter 2, tables 1, 2, and 4.

Table 580.-- NUMBER OF FARMS, FARM ACREAGE, AND FARM EMPLOYMENT: 1970 TO 1987

Year	Number of farms 1/	Farm acreage 2/ (1,000)	Farm employment 3/		
			Self-employed farm operators	Unpaid family members	Hired workers
1970	4,500	2,300	3,200	1,450	12,450
1971	4,400	2,300	3,050	1,500	11,810
1972	4,300	2,300	3,050	1,550	11,220
1973	4,300	2,300	3,050	1,550	10,770
1974	3,800	2,200	3,040	1,660	10,180
1975	3,900	2,150	3,060	1,720	11,040
1976	4,000	2,100	2,890	1,560	11,240
1977	4,100	2,050	2,840	1,550	11,300
1978	4,300	1,980	2,890	1,810	11,600
1979	4,300	1,980	3,020	1,520	10,800
1980	4,300	1,970	3,400	1,100	10,550
1981	4,400	1,965	3,100	900	10,500
1982	4,500	1,960	2,600	1,300	13,000
1983	4,500	1,960	2,500	1,500	13,000
1984	4,600	1,950	2,200	1,300	11,800
1985	4,400	1,950	2,200	1,200	10,600
1986	4,300	1,950	2,050	1,200	9,700
1987	4,400	1,950	2,600	1,100	10,700

1/ Based on farm definition of $600 or more of agricultural sales prior to 1974 and $1,000 or more thereafter.

2/ Includes land not in crop and pasture, such as farm house lots, roads, woodlots, etc.

3/ Annual averages through 1980, and varying dates thereafter.

Source: Hawaii Agricultural Statistics Service, Statistics of Hawaiian Agriculture (annual).

Table 581.-- VALUE OF CROP AND LIVESTOCK SALES: 1970 TO 1987

[$1,000]

Year	All crops and livestock	Crops				Livestock
		All crops	Sugar (unprocessed cane)	Pineapples (fresh equiv.)	Other crops	
1970	213,667	172,019	110,600	39,500	21,919	41,648
1971	221,692	178,639	115,800	40,300	22,539	43,053
1972	232,497	186,255	117,300	43,900	25,055	46,242
1973	265,771	210,502	141,900	39,600	29,002	55,269
1974	575,432	517,523	442,300	40,259	34,964	57,909
1975	377,575	319,304	237,000	41,616	40,688	58,271
1976	327,820	265,498	164,700	52,983	47,815	62,322
1977	325,182	260,164	144,200	62,249	53,715	65,018
1978	380,655	308,098	182,700	63,090	62,308	72,557
1979	441,253	362,789	217,600	69,409	75,780	78,464
1980	634,101	552,877	385,100	76,596	91,181	81,224
1981	489,502	401,348	207,500	89,745	104,103	88,154
1982	507,268	428,860	230,800	94,364	103,696	78,408
1983 1/ ...	568,413	481,925	266,900	100,376	114,649	86,488
1984	550,517	463,502	256,200	89,928	117,374	87,015
1985 1/ ...	528,649	445,826	222,400	90,530	132,896	82,823
1986 1/ ...	564,717	481,312	233,800	99,720	147,792	83,405
1987	556,987	469,048	218,000	99,286	151,762	87,939

1/ Revised from Data Book 1987, table 579.

Source: Hawaii Agricultural Statistics Service, Statistics of Hawaiian Agriculture (annual).

Table 582.-- NUMBER OF FARMS, FARM ACREAGE, AND FARM EMPLOYMENT, BY COUNTIES OR ISLANDS: 1977, 1986, AND 1987

County or island	Number of farms 1/	Farm acreage 2/ (1,000)	Farm employment 3/ Self-employed farm operators	Farm employment 3/ Unpaid family members	Farm employment 3/ Hired workers
State total:					
1977	4,100	2,300	2,840	1,550	11,300
1986	4,200	1,950	2,050	1,200	9,700
1987	4,400	1,950	2,600	1,100	10,700
Hawaii County:					
1977	2,450	1,340	1,610	925	3,500
1986	2,500	1,140	1,350	800	3,100
1987	2,600	1,140	1,725	750	3,800
Maui County:					
1977	500	530	325	160	3,260
1986	500	420	200	100	2,800
1987	500	420	260	140	2,800
Oahu:					
1977	850	150	650	350	2,875
1986	950	120	350	250	2,500
1987	950	120	460	160	2,800
Kauai County:					
1977	300	280	250	110	1,650
1986	350	275	150	50	1,250
1987	350	275	160	50	1,300

1/ Based on farm definition of $1,000 or more of agricultural sales.

2/ Includes land not in crops and pasture, such as farm house lots, roads, woodlots, etc.

3/ Data not comparable among years shown due to changes in survey periods; sum of county estimates may not add due to rounding.

Source: Hawaii Agricultural Statistics Service, Statistics of Hawaiian Agriculture (annual).

Table 583.-- VALUE OF CROP AND LIVESTOCK SALES, BY COUNTIES OR ISLANDS: 1977, 1986, AND 1987

[$1,000]

County and year	All crops and livestock	Crops				Livestock
		All crops	Sugar (unprocessed cane)	Pineapples (fresh equiv.)	Other crops	
State total:						
1977	325,182	260,164	144,200	62,249	53,715	65,018
1986 1/ ...	564,717	481,312	233,800	99,720	147,792	83,405
1987	556,987	469,048	218,000	99,286	151,762	87,939
Hawaii County:						
1977	96,088	80,781	51,900	-	28,881	15,307
1986 1/	187,958	165,976	74,100	-	91,876	21,982
1987	181,228	154,639	64,400	-	90,239	20,589
Maui County:						
1977	85,200	76,643	37,100	30,578	8,965	8,557
1986 1/	144,393	132,647	67,500	45,540	19,607	11,751
1987	146,533	135,934	66,900	46,366	22,668	10,599
Oahu:						
1977	105,233	67,669	23,000	31,671	12,998	37,564
1986 1/	166,680	122,237	38,200	54,180	29,857	44,443
1987	166,281	120,626	35,500	52,920	32,206	45,655
Kauai County:						
1977	38,661	35,071	32,200	-	2,871	3,590
1986 1/	65,681	60,452	54,000	(2/)	6,452	5,229
1987	62,945	57,849	51,200	(2/)	6,649	5,096

1/ Revised from Data Book 1987, table 581.
2/ Less than $50,000.
Source: Hawaii Agricultural Statistics Service, Statistics of Hawaiian Agriculture (annual).

Table 584.-- ACREAGE IN CROP, NUMBER OF CROP FARMS, VOLUME OF CROP MARKETINGS, AND VALUE OF CROP SALES: 1977, 1986, AND 1987

Subject	1977	1986	1987 1/
Acreage in crop (1,000 acres):			
Sugarcane	220.7	184.3	181.1
Pineapples (land used for pineapple)	45.0	36.0	36.1
Vegetables and melons (harvested acreage)	3.8	5.4	5.6
Fruits, excluding pineapples	5.1	6.8	7.0
Coffee	2.4	2.3	2.3
Macadamia nuts	9.9	21.2	21.5
Miscellaneous crops	6.2	5.8	5.8
Number of crop farms:			
Sugar	520	120	100
Pineapples	16	18	12
Vegetables and melons	504	750	660
Fruits (excluding pineapples)	673	793	774
Coffee	780	620	620
Macadamia nuts	456	645	650
Taro	129	140	140
Flowers and nursery products	550	635	670
Volume of crop marketings:			
Sugar, unprocessed cane (1,000 tons)	8,994	8,379	8,014
Pineapples, fresh equivalent (1,000 tons)	690	646	692
Vegetables and melons (1,000 lb.)	68,380	91,950	94,080
Fruits, excluding pineapples (1,000 lb.)	76,830	90,610	99,440
Coffee, parchment (1,000 lb.)	2,270	3,000	1,700
Macadamia nuts, in shell (1,000 lb.)	19,680	44,000	42,700
Taro (1,000 lb.)	7,870	6,330	6,300
Value of crop sales ($1,000):			
Sugar (unprocessed cane)	144,200	233,800	218,000
Pineapples (fresh equivalent)	62,249	99,720	99,286
Vegetables and melons	15,108	30,267	29,993
Fruits (excluding pineapples)	9,365	16,606	17,471
Coffee (parchment)	3,133	8,700	4,845
Macadamia nuts (in shell)	8,029	35,200	35,868
Taro	999	1,462	1,701
Field crops (not estimated separately)	2,948	6,595	5,907
Flowers and nursery products	14,003	49,094	55,767

NA Not available.

1/ Revised from Data Book 1987, table 582.

Source: Hawaii Agricultural Statistics Service, Statistics of Hawaiian Agriculture (annual).

Table 585.-- ACREAGE IN CROP, NUMBER OF CROP FARMS, VOLUME OF CROP MARKETINGS, AND VALUE OF CROP SALES, BY GEOGRAPHIC AREAS: 1987

Subject	Hawaii County	Maui County	Oahu	Kauai County
Acreage in crop (1,000 acres):				
Sugarcane	68.5	43.9	25.7	43.0
Pineapples (land used for pineapple)	-	23.7	12.4	1/
Vegetables and melons (harvested acreage)	1.9	2.2	1.4	0.1
Fruits, excluding pineapples	5.3	0.1	0.8	0.8
Coffee	2.3	-	-	-
Macadamia nuts	19.5	(D)	(D)	(D)
Miscellaneous crops	2.8	1.6	0.8	0.6
Number of crop farms:				
Sugar	89	3	3	5
Pineapples	-	7	2	3
Vegetables and melons	344	92	186	38
Fruits (excluding pineapples)	518	43	143	70
Coffee	620	-	-	-
Macadamia nuts	630	9	3	8
Taro	68	19	7	46
Flowers and nursery products	320	90	230	30
Volume of crop marketings:				
Sugar, unprocessed cane (1,000 tons)	2,566	2,236	1,300	1,912
Pineapples, fresh equivalent (1,000 tons)	-	444	248	2/
Vegetables and melons (1,000 lb.)	35,990	42,140	14,900	1,050
Fruits, excluding pineapples (1,000 lb.) .	76,240	1,250	6,430	15,520
Coffee, parchment (1,000 lb.)	1,700	-	-	-
Macadamia nuts, in shell (1,000 lb.)	41,300	(D)	(D)	(D)
Taro (1,000 lb.)	1,280	(D)	(D)	4,170
Value of crop sales ($1,000):				
Sugar (unprocessed cane)	64,400	66,900	35,000	51,200
Pineapples (fresh equivalent)	-	46,366	52,920	3/
Vegetables and melons	11,523	11,111	6,926	433
Fruits (excluding pineapples)	13,064	295	1,785	2,327
Coffee (parchment)	4,845	-	-	-
Macadamia nuts (in shell)	34,527	(D)	(D)	(D)
Taro	476	(D)	(D)	1,017
Field crops (not estimated separately) ...	651	3,219	482	1,555
Flowers and nursery products	24,958	6,570	22,967	1,272

D Withheld to avoid disclosure of individual operations.
1/ Less than 500 acres.
2/ Less than 500 tons.
3/ Less than $50,000.
Source: Hawaii Agricultural Statistics Service, Statistics of Hawaiian Agriculture 1987.

Table 586.-- VEGETABLES, MELONS, FRUITS, NUTS, COFFEE, AND TARO: 1987

[Data shown for crops with sales in excess of $500,000]

Crop	Acreage harvested 1/	Yield per acre (1,000 lb.)	Production (1,000 lb.)	Farm price (cents per lb.)	Value of sales ($1,000)
Vegetables and melons:					
Snap beans	150	5.9	890	74.3	661
Chinese cabbage	400	20.0	8,000	15.9	1,272
Head cabbage	510	29.3	14,950	14.6	2,183
Celery	90	30.3	2,730	20.6	562
Cucumbers	200	19.8	3,960	28.2	1,117
Daikon	250	14.8	3,700	17.1	633
Eggplant	55	23.5	1,290	53.4	689
Ginger root	215	46.7	10,050	45.0	4,523
Lettuce (head, semi-head)	520	13.5	7,000	27.4	1,918
Dry onions	170	11.6	1,980	72.6	1,437
Green peppers	200	11.5	2,300	45.2	1,040
Burdock	30	19.3	580	87.4	507
Tomatoes	250	28.0	7,000	42.6	2,982
Watermelons	740	18.6	13,800	11.9	1,642
Green onions	170	7.2	1,220	73.1	892
Watercress	40	30.8	1,230	92.9	1,142
Sweet corn	345	4.3	1,480	34.2	506
Fruits:					
Bananas	1,070	10.7	11,400	29.7	3,386
Guavas	710	24.6	17,450	12.0	2,094
Papayas	2,350	28.5	67,000	16.5	11,050
Macadamia nuts (1987-1988)	15,600	2.7	42,700	84.0	35,868
Coffee (1987-1988)	2,050	0.8	1,700	285.0	4,845
Taro	400	15.8	6,300	27.0	1,701

1/ Acreage bearing for macadamia nuts; acreage in crop for watercress and taro.

Source: Hawaii Agricultural Statistics Service, Statistics of Hawaiian Agriculture 1987.

Table 587.-- SUGARCANE ACREAGE, BY TYPE OF IRRIGATION: 1972 TO 1987

Year	Total cane land	Irrigated cane land		Unirrigated cane land
		Drip	Furrow or overhead	
1972	229,611	327	119,704	109,580
1973	226,580	2,544	116,136	107,900
1974	224,227	5,662	112,919	105,646
1975	221,426	12,719	103,998	104,709
1976	221,551	21,250	98,797	101,504
1977	220,729	30,042	91,368	99,319
1978	220,697	39,167	80,207	101,323
1979	218,773	49,202	70,936	98,635
1980	217,718	60,241	58,966	98,511
1981	216,099	69,665	48,493	97,941
1982	204,749	73,551	41,896	89,302
1983	194,258	80,019	33,459	80,780
1984	188,396	86,925	26,325	75,146
1985	187,858	89,129	24,323	74,406
1986	184,179	90,877	19,526	73,776
1987	180,967	88,812	18,602	73,553

Source: Hawaiian Sugar Planters' Association, records; Alexander & Baldwin, Inc., "Water to the Roots," Ampersand, Spring 1987, pp. 3-6.

Table 588.-- FRESH FRUIT AND VEGETABLE ARRIVALS IN HONOLULU, BY SOURCE: 1985 TO 1987

[1,000 pounds, net]

Source	1985	1986	1987
Total arrivals	275,623	291,212	295,701
From Hawaii	101,080	103,793	102,078
Oahu 1/	44,260	44,582	40,160
Other islands 2/	56,820	59,211	61,918
Hawaii 2/	29,188	27,932	29,510
Maui 2/	15,949	15,512	16,229
Molokai 2/	8,654	13,295	14,279
Kauai 2/	3,029	2,472	1,900
From U.S. Mainland 2/	165,833	179,647	183,952
From foreign countries 2/	8,710	7,772	9,671

1/ Wholesalers' truck receipts.
2/ Ship and plane arrivals.
Source: Hawaii State Department of Agriculture, Market News Service, Honolulu Arrivals, Fresh Fruits and Vegetables, 1987 (March 1988), table 1.

Table 589.--FEED INSHIPMENTS FROM ALL SOURCES: 1983 TO 1986

[1,000 tons. This survey was discontinued after 1986]

Commodity	1983	1984	1985	1986
Total feed	193.0	191.6	170.2	141.4
Feed grains	89.8	88.4	78.4	68.4
Mixed feeds	24.5	21.8	18.5	14.5
Alfalfa products	30.2	32.3	24.1	19.5
Protein foods	26.5	29.6	28.6	25.4
Other feed stuff	21.9	19.5	20.6	13.6

Source: Hawaii Agricultural Statistics Service, Statistics of Hawaiian Agriculture 1987.

Table 590.-- LIVESTOCK INVENTORY, 1977, 1986, AND 1988, AND BY GEOGRAPHIC AREAS, 1987

[In thousands]

Year and geographic area	All cattle and calves 1/	Milk cows 1/	Hogs and pigs 2/	Chickens (excluding broilers) 2/	Bee colonies
1977	240	14	62	1,301	7
1986	195	12	50	1,185	9
1987	199	12	47	1,212	9
GEOGRAPHIC AREAS: 1987					
Hawaii County	123.1	1.7	4.4	194	(NA)
Maui	27.8	1.0	8.8	(3/)	(NA)
Molokai and Lanai	0.7	-	0.7	(3/)	(NA)
Oahu	33.5	8.8	28.5	1,018	(NA)
Kauai County	13.9	0.4	4.6	(3/)	(NA)

NA Not available.

1/ As of January 1.

2/ As of December 1.

3/ Kauai, Maui, and Molokai combined with Hawaii to avoid disclosure of individual operations.

Source: Hawaii Agricultural Statistics Service, Statistics of Hawaiian Agriculture (annual).

Table 591.-- NUMBER OF LIVESTOCK OPERATIONS, VOLUME OF LIVESTOCK MARKETINGS, AND VALUE OF LIVESTOCK SALES: 1977, 1986, AND 1987

Subject	1977	1986 1/	1987
Number of livestock operations, Dec. 31:			
Cattle 2/	900	800	800
Hogs	640	600	600
Milk	80	90	90
Eggs	70	55	55
Broilers	10	8	8
Honey	23	20	14
Volume of livestock marketings:			
Beef (dressed weight; 1,000 lb.) 3/	32,325	33,764	34,335
Pork (dressed weight; 1,000 lb.)	8,762	8,643	8,430
Milk (million lb.)	147.5	153.1	153.1
Eggs (million)	218	227.0	223.3
Broilers and chickens (1,000 lb.) 4/	6,158	7,629	7,988
Honey (1,000 lb.)	679	1,323	1,710
Value of livestock sales ($1,000):			
Cattle 5/	18,837	24,645	27,401
Hogs 5/	7,115	8,770	8,509
Milk	23,158	30,605	31,201
Eggs	12,408	13,450	14,291
Broilers and chickens	3,125	4,744	5,119
Other 6/	375	1,191	1,418

1/ Revised from Data Book 1987, table 589.

2/ Includes beef, dairy, and dairy replacement farms. 1977 as of January 1.

3/ Includes slaughter cattle, but excludes calves shipped out-of-State.

4/ Ready-to-cook weight.

5/ Excludes interfarm sales; includes out-of-State sales of slaughter cattle and feeder calves.

6/ Includes sheep, wool, turkeys, horses, honey, and beeswax.

Source: Hawaii Agricultural Statistics Service, Statistics of Hawaiian Agriculture (annual).

Table 592.-- NUMBER OF LIVESTOCK OPERATIONS, VOLUME OF LIVESTOCK MARKETINGS, AND VALUE OF LIVESTOCK SALES, BY GEOGRAPHIC AREAS: 1987

Subject	Hawaii County	Maui County	Oahu	Kauai County
Number of livestock operations, Dec. 31:				
Cattle 1/	380	180	70	170
Hogs	80	100	300	120
Milk	41	16	20	13
Eggs	25	7	19	4
Broilers	-	-	7	1
Honey	5	4	3	5
Volume of livestock marketings:				
Beef 2/ (dressed weight; 1,000 lb.)	25,894	5,263	1,475	1,923
Pork (dressed weight; 1,000 lb.)	688	1,780	4,933	1,045
Milk (million lb.)	(D)	(D)	115.7	(D)
Eggs (million)	(D)	(D)	179.8	(D)
Broilers and chickens 3/ (1,000 lb.)	(D)	(D)	737	(D)
Honey (1,000 lb.)	(D)	(D)	(D)	(D)
Value of livestock sales ($1,000):				
Cattle 4/	20,535	4,317	924	1,625
Hogs 4/	707	1,934	4,754	1,114
Milk	(D)	(D)	23,895	(D)
Eggs	(D)	(D)	11,282	(D)
Broilers and chickens	(D)	(D)	(D)	(D)
Other 5/	988	161	53	216

D Withheld to avoid disclosure of individual operations.

1/ Includes beef, dairy, and dairy replacement farms.

2/ Includes slaughter cattle, but excludes calves shipped out-of-State.

3/ Ready-to-cook weight.

4/ Excludes interfarm sales; includes out-of-State sales of slaughter cattle and feeder calves.

5/ Includes sheep, wool, turkeys, horses, honey, and beeswax.

Source: Hawaii Agricultural Statistics Service, Statistics of Hawaiian Agriculture 1987.

Table 593.-- FLOWERS AND NURSERY PRODUCTS, 1985 TO 1987, AND BY ISLANDS, 1987

Island and year	Number of farms	Growing area: Total (acres)	Growing area: Greenhouse (1,000 sq. ft.)	Growing area: Artificial shade structure (1,000 sq. ft.)	Growing area: Natural shade area (acres)	Growing area: Open field (acres)	Value of sales ($1,000)
State total:							
1985	675	1,761	2,836	29,643	91	924	44,162
1986 1/	635	1,652	2,535	27,610	55	905	49,132
1987	670	1,849	3,145	27,970	55	1,080	55,767
Islands, 1987:							
Hawaii	320	999	1,710	19,820	55	450	24,958
Kauai	30	47	25	260	-	40	1,272
Maui	90	295	340	760	-	270	6,570
Oahu	230	508	1,070	7,130	-	320	22,967

NA Not available.

1/ Revised from Data Book 1987, table 591.

Source: Hawaii Agricultural Statistics Service, Hawaii Flowers & Nursery Products, Annual Summary (July 21, 1988).

Table 594.-- VALUE OF SALES, TOTAL AND OUT-OF-STATE, FOR FLOWERS AND NURSERY PRODUCTS: 1983 TO 1987

[$1,000]

Subject	1983	1984	1985	1986 1/	1987
Total sales 2/	36,165	38,905	44,162	49,132	55,767
Anthuriums, cut	6,035	7,351	7,645	9,878	8,342
Out-of-State sales 3/ .	22,000	21,610	24,284	28,136	31,904
Anthuriums, cut	7,005	7,050	7,581	8,653	9,170

1/ Revised from Data Book 1987, table 594.

2/ Wholesale value only.

3/ Includes retail sales.

Source: Hawaii Agricultural Statistics Service, Statistics of Hawaiian Agriculture 1987.

Table 595.-- FLOWERS AND NURSERY PRODUCTS, BY COMMODITY: 1987

[Shown for commodities with value of sales over $750,000]

Commodity	Number of farms	Number sold		Value of sales ($1,000)
		Unit	Number	
Selected cut flowers:				
Anthuriums	167	1,000 dozens	1,996	8,342
Heliconias	78	1,000 dozens	161	1,427
Roses, tea	11	1,000 dozens	5,534	1,946
Protea	37	1,000 stems	1,468	876
Orchids:				
Sprays: Dendrobium	72	1,000 dozens	378	2,397
Potted: Dendrobiums	86	1,000 pots	641	2,208
Lei flowers:				
Carnations	18	Million blooms	26.6	967
Tuberose	6	Million blooms	95.5	2,433
Ornamentals and trees	42	...	(NA)	2,015
Foliage:				
Potted, primarily for--				
Indoor or patio use	102	...	(NA)	14,883
Landscape use	34	...	(NA)	2,102
Unfinished stock (for further growing on)	24	...	(NA)	1,394
Potted flowering plants:				
Chrysanthemums	13	1,000 pots	309	966

NA Not available.

Source: Hawaii Agricultural Statistics Service, Hawaii Flowers & Nursery Products, Annual Summary (July 21, 1988).

Table 596.-- MARKET SUPPLY OF SPECIFIED FOODS: 1977, 1986, AND 1987

Commodity and year	Total market supply 1/			Per capita market supply 2/	Percent from Hawaii
	Total	Inshipment	Hawaii		
Fresh market fruits:					
1977	70,439	49,783	20,656	72.7	29.3
1986 3/	100,253	72,253	28,000	84.9	27.9
1987	104,764	75,139	29,625	87.2	28.3
Fresh market melons:					
1977	10,871	8,786	2,085	11.2	21.8
1986 3/	27,155	12,855	14,300	23.0	52.7
1987	27,809	14,009	13,800	23.2	49.6
Fresh market vegetables:					
1977	152,532	88,132	64,400	157.4	42.4
1986 3/	210,299	134,084	76,215	178.1	36.2
1987	218,385	139,485	78,900	181.8	36.1
Beef and veal: 4/					
1977	93,142	60,817	32,325	96.1	34.7
1986 3/	108,047	74,283	33,764	91.5	31.5
1987	109,015	74,680	34,335	90.8	31.5
Pork: 4/					
1977	31,971	23,221	8,750	33.0	33.8
1986 3/	38,686	30,043	8,643	32.8	22.5
1987	39,678	31,247	8,431	33.0	21.2
Chickens:					
1977	28,021	21,863	6,158	28.9	22.0
1986 3/	40,248	32,619	7,629	34.1	19.1
1987	42,323	34,335	7,988	35.2	18.9
Eggs:					
1977	19,706	1,506	18,200	23.1	96.3
1986 3/	21,983	3,066	18,917	18.6	86.0
1987	22,105	3,497	18,608	18.4	84.2

1/ Eggs in 1,000 dozens; other foods in 1,000 pounds.

2/ Eggs in dozens; other foods in pounds. Based on de facto population estimates in table 3.

3/ Revised from Data Book 1987, table 594.

4/ Carcass weight equivalent.

Source: Hawaii Agricultural Statistics Service, Statistics of Hawaiian Agriculture (annual).

Table 597.-- LAND EVALUATION RATING, FOR SIX MAJOR ISLANDS: 1985

[Thousand acres. The Land Evaluation and Site Assessment Commission land evaluation rating is a composite index, scaled from 0 to 100, based on measurements of soil productivity and the suitableness of land for agricultural purposes. Data exclude Kahoolawe, Niihau, Lehua, Kaula, and the Northwestern Hawaiian Islands]

Land evaluation rating	Six-island total	Hawaii	Maui	Lanai	Molokai	Oahu	Kauai
Total area	4,042	2,579	466	90	166	386	355
90 to 100	66	-	17	3	7	39	-
80 to 89	137	17	39	11	16	33	20
70 to 79	189	95	20	2	6	27	40
60 to 69	212	125	36	(Z)	9	22	20
50 to 59	221	113	64	3	10	12	18
40 to 49	309	227	40	6	10	18	7
30 to 39	605	543	29	1	3	11	17
20 to 29	492	282	55	48	50	30	26
10 to 19	1,813	1,176	165	15	55	194	206
Under 10	-	-	-	-	-	-	-
Mean rating ...	32.8	29.8	40.8	36.7	37.6	40.1	32.9

Z Less than 500 acres.

Source: Land Evaluation and Site Assessment Commission and *A Report on the State of Hawaii Land Evaluation and Site Assessment System* (February 1986), Exhibit A.

Table 598. -- AGRICULTURAL CHEMICALS USED, INCLUDING FERTILIZER AND LIME: 1982 AND 1978

Chemicals used		1982	1978
Any chemicals, fertilizer, or lime used	farms	3,532	3,568
Commercial fertilizer	farms	3,158	3,172
	acres on which used	228,984	284,452
	$1,000	33,477	26,530
Lime	farms	525	525
	acres on which used	9,547	12,488
	tons	10,423	12,011
Other agricultural chemicals 1/	farms	3,084	3,277
	$1,000	16,417	13,700
Sprays, dusts, granules, fumigants, etc., to control --			
Insects on hay and other crops	farms	1,702	1,204
	acres on which used	45,671	28,787
Nematodes in crops	farms	654	441
	acres on which used	9,638	9,806
Diseases in crops and orchards	farms	1,067	912
	acres on which used	18,085	12,310
Weeds, grass, or brush in crops and pasture	farms	2,385	2,325
	acres on which used	213,551	269,801
Chemicals used for defoliation or for growth control of crops or thinning of fruit	farms	165	160
	acres on which used	50,455	57,280

1/ Data for 1978 include the cost of lime which was not collected in 1982.

Source: U.S. Bureau of the Census, *1982 Census of Agriculture, Geographic Area Series, Hawaii, State and County Data*, AC82-A-11 (September 1984), Chap. 1, table 16.

Table 599.-- NUMBER OF AQUACULTURE INDUSTRY OPERATIONS, BY COUNTIES: 1982 TO 1987

[As of December 31]

County	1982	1983	1984	1985	1986	1987
ALL AQUACULTURE INDUSTRY OPERATIONS						
State total	44	42	47	48	44	45
Hawaii	8	8	14	12	12	13
Maui	5	5	5	6	4	3
Honolulu	25	24	23	24	23	25
Kauai	6	5	5	6	5	4
PRAWN PRODUCERS						
State total	22	21	17	20	20	14
Hawaii	4	3	3	5	3	2
Maui	1	1	1	-	1	-
Honolulu	13	13	10	11	13	10
Kauai	4	4	3	4	3	2

Source: Hawaii State Department of Land and Natural Resources, Aquaculture Development Program, October 3, 1988.

Table 600.-- AQUACULTURE ACREAGE, PRODUCTION, AND VALUE, BY COUNTIES: 1987

Subject	State total	Hawaii	Maui	Honolulu	Kauai
Acreage (Dec. 31)	437	29	1	374	33
Production (1,000 lb.)..	1,688.7	79.2	(NA)	1,609.5	(NA)
Shellfish	1,187.5	(NA)	(NA)	1,187.5	(NA)
Finfish	317.7	34.7	(NA)	283.0	(NA)
Algae	183.5	44.5	(NA)	139.0	(NA)
Other 1/	...	...	...	...	(NA)
Value ($1,000)	6,263.4	762.1	(NA)	5,501.3	(NA)
Shellfish	4,534.5	(NA)	(NA)	4,534.5	(NA)
Finfish	733.2	101.2	(NA)	632.0	(NA)
Algae	637.7	410.9	(NA)	226.8	(NA)
Other 1/	358.0	250.0	(NA)	108.0	(NA)

1/ Items not sold by weight: post-larvae, brine shrimp, koi, tropical fish, and aquarium plants.

Source: Hawaii State Department of Land and Natural Resources, Aquaculture Development Program, October 3, 1988.

Section 20

FORESTS, FISHERIES, AND MINING

This section presents data on forests and forest products, commercial fishing, and mining and mineral products.

The most recent available statistics show 1.2 million acres of forest and water reserve and 948,000 acres of commercial timberland in the State, most of it on the Big Island. Over 46,000 acres had been planted in eucalyptus and other species of trees by mid-1987. Recent surveys of vegetation on three islands show ohia lehua to be the most common type of tree on Oahu and Kauai (with acreages of 38,000 and 109,000, respectively) and kiawe the leading type (at 33,000 acres) on Molokai. Forest and brushland fires burned 10.5 square miles in fiscal 1987.

The commercial fish catch in fiscal year 1987 amounted to 12.1 million pounds, with a value of $20 million to primary producers. Ahi (yellowfin) and aku (skipjack) accounted for 38 percent of the total value. Other important species are spiny lobster, opakapaka, mahimahi, and ono. Commercial fishermen numbered 3,008. Among Marine Life Conservation Districts, those with the most fish per acre were Hanauma Bay (6,225 inshore), Manele-Hulopoe Bays (4,417), and Kealakekua Bay (4,149).

The value of mineral production reached $73 million in 1987, almost all of it in cement ($27 million) and crushed stone ($43 million). The 1987 total was an all-time high.

Important sources of data on these subjects are the United States Census of Mineral Industries and reports and records of the U.S. Bureau of Mines and Hawaii State Department of Land and Natural Resources, Aquatic Resources Division and Forestry and Wildlife Division. Historical Statistics of Hawaii, Section 14, summarizes the data for earlier periods. Comparable Mainland statistics are reported in the Statistical Abstract of the United States: 1988, Sections 24 and 25.

Table 601.-- FOREST ACREAGE, BY ISLANDS: 1970-1987

Island	Conservation district forest land, June 30, 1987		Forest land, 1970		Planted forest, June 30, 1987	
	Forest reserve land 1/	Private forest land 2/	Commercial 3/	Noncommercial 4/	Planted in preceding year	Total standing
State total	840,540	327,845	947,800	1,038,600	715	46,700
Hawaii	585,000	106,745	569,400	583,100	676	18,099
Maui	93,320	53,180	67,500	172,300	3	11,682
Kahoolawe	-	-	-	15,800	-	-
Lanai	-	6,150	4,500	39,400	-	512
Molokai	44,290	-	34,000	44,100	-	3,205
Oahu	29,810	87,920	126,500	78,800	1	7,039
Kauai	88,120	73,850	145,900	74,000	35	6,163
Niihau	-	-	-	31,100	-	-
Other islands ..	-	-	-	-	-	-

1/ State owned and privately owned lands under surrender agreement in forest reserve system.

2/ Private forest land within conservation district. The majority of these lands were previously in the forest reserve system.

3/ Includes federal military, state, miscellaneous corporate, and miscellaneous individual forest land.

4/ Unproductive or productive-reserved.

Source: Hawaii State Department of Land and Natural Resources, Division of Forestry and Wildlife, records.

Table 602.-- LAND AREA, BY VEGETATION TYPE AND FOREST RESERVE STATUS, FOR MOLOKAI, OAHU, AND KAUAI: 1986

[In acres. Excludes land in forest plantations]

Vegetation type	Molokai		Oahu		Kauai	
	Total	Forest reserve	Total	Forest reserve	Total	Forest reserve
Total, all types	163,214	44,288	370,002	34,931	347,088	88,127
Tree type:						
Ohia lehua	32,833	30,161	37,563	9,524	109,040	50,702
Koa	-	-	28,548	6,601	13,438	6,223
Kukui	4,773	4,009	2,775	617	7,634	2,029
Kiawe	33,215	-	17,354	241	10,358	116
Eucalyptus	1,527	954	1,131	411	3,157	1,288
Guava	5,918	4,200	10,287	1,421	12,143	3,099
Other trees	2,673	573	36,700	6,776	32,763	6,043
Shrub type	16,417	1,527	33,974	2,965	36,061	7,189
Forb type	191	-	11,338	2,718	4,120	2,043
Grassland	38,751	764	45,102	3,261	34,168	5,198
Cultivated land	18,325	-	55,770	-	64,741	387
No vegetation	3,819	-	822	-	6,709	3,810
Urban and other	4,772	2,100	88,638	396	12,756	-

Source: Hawaii State Department of Land and Natural Resources, Division of Forestry and Wildlife, multi-resource inventory reports.

Table 603.-- FOREST AND BRUSHLAND FIRES, BY COUNTIES: 1986 AND 1987

[Years ended June 30]

Subject	State total	Counties			
		Hawaii	Maui	Hono-lulu	Kauai
Number of fires:					
1986	140	73	32	22	13
1987	109	58	38	11	2
Acres burned:					
1986	25,329	25,246	17	58	8
1987	6,713	4,356	449	1,905	3

Source: Hawaii State Department of Land and Natural Resources, Division of Forestry and Wildlife, records.

Table 604.-- COMMERCIAL FISH LANDINGS, BY ISLANDS: 1987

[Year ended June 30, 1987]

Island	Pounds caught	Pounds sold	Value (dollars)
State total	12,140,193	11,638,645	20,512,519
Hawaii	3,818,341	3,717,915	4,802,594
Maui	1,018,660	939,515	1,719,597
Lanai	24,725	21,069	33,554
Molokai	77,112	65,723	166,045
Oahu	5,820,935	5,658,286	11,742,389
Kauai	1,372,916	1,229,309	2,034,598
Niihau	7,504	6,828	13,741

Source: Hawaii State Department of Land and Natural Resources, Division of Aquatic Resources, Commercial Fish Landings for Fiscal Year--July, 1986 through June, 1987.

Table 605.-- COMMERCIAL FISHING: 1970 TO 1987

[Years ended June 30]

Year	Number of commercial fishermen	Commercial fish catch 1/		
		Pounds caught	Pounds sold	Value to primary producers (dollars)
1970	1,264	9,786,726	9,588,319	3,585,166
1971	1,373	15,176,525	14,945,539	4,633,875
1972	1,544	15,577,669	15,246,519	5,536,521
1973	1,677	14,029,491	13,719,284	5,676,783
1974	2,085	13,997,774	13,660,574	6,234,924
1975	1,991	10,801,441	10,404,019	6,242,614
1976	2,283	11,893,141	11,332,659	7,508,395
1977	2,368	15,298,515	14,763,816	9,433,781
1978	2,574	13,672,061	13,139,142	11,115,964
1979	2,447	12,310,524	11,890,241	12,673,328
1980	2,525	10,418,964	9,946,065	10,497,456
1981	2,577	10,890,468	10,465,731	11,828,575
1982	2,525	9,178,789	8,824,348	10,754,276
1983	2,480	7,841,959	7,529,178	10,506,860
1984	2,940	9,819,800	9,344,200	13,556,184
1985	2,638	9,436,591	9,077,357	15,901,656
1986	2,880	9,503,193	9,081,881	18,557,533
1987	3,008	12,128,527	11,628,387	20,477,699

1/ Represents the total catches of all licensed commercial fishers. Includes both sea and pond catch, but excludes coral harvests. Particularly for years since 1979, data may be incomplete due to unreported aku (skipjack tuna) boat and flagline boat catches.

Source: Hawaii State Department of Land and Natural Resources, Division of Aquatic Resources, *Commercial Fish Landings for Fiscal Year* (annual), as revised, and records.

Table 606.-- COMMERCIAL FISH CATCH, BY SPECIES: 1987

[Year ended June 30, 1987]

Species 1/	Pounds caught	Pounds sold	Value (dollars)
Total catch	12,140,193	11,638,645	20,512,519
Sea catch, all species 2/	12,108,237	11,607,225	20,445,390
Aku (Skipjack)	3,006,280	2,933,191	3,166,412
Ahi (Yellowfin)	4,090,276	3,877,862	4,720,184
Ahipahala	189,459	188,386	136,545
Ahi (Bigeye)	201,103	197,190	502,330
Striped marlin	75,493	71,689	109,497
Pacific blue marlin	514,100	476,947	419,602
Mahimahi	702,745	669,592	1,523,454
Ono	455,083	432,246	1,023,329
Hapuupuu	92,384	893,330	158,998
Opakapaka	402,459	384,168	1,202,950
Uku	89,175	88,249	243,756
Ehu	56,839	54,013	156,057
Onaga	248,049	244,735	916,381
Akule	184,414	173,685	329,722
Lehi	38,609	36,653	100,368
Opelu	394,719	383,749	599,511
Lobster (Spiny)	318,424	317,054	2,756,854
Slipper lobster	156,835	156,660	1,025,411
Pond catch, all species	31,956	31,420	67,129

1/ Shown separately for all species over 100,000 lb. or $100,000.

2/ Including species not shown separately.

Source: Hawaii State Department of Land and Natural Resources, Division of Aquatic Resources, Commercial Fish Landings for Fiscal Year--July 1986 through June 1987.

Table 607.-- COMMERCIAL FISH CATCH, BY HABITAT AND SPECIES: 1900 TO 1986

[1,000 lb.]

Habitat and species	1900	1950	1953	1985	1986
Total catch	6,207.4	16,217.5	18,862.8	8,551.9	11,202.1
Habitat:					
Coastal	3,640.8	878.2	791.2	575.1	627.6
Neritic-pelagic	998.5	610.3	566.9	459.9	597.9
Slope and seamount	211.9	806.8	600.2	1,595.5	1,717.9
Pelagic	1,306.6	13,805.9	16,793.8	5,909.1	8,252.9
Selected species:					
Opihi	147.2	7.2	3.0	14.9	14.4
Goatfishes	364.5	140.7	164.0	73.4	68.7
Pond and nearshore 1/	1,319.8	216.7	140.9	32.9	28.3
Ulua	652.0	228.8	319.9	105.6	102.3
Surgeonfish, parrotfish	278.5	46.3	13.6	82.7	118.8
Akule	849.6	417.6	314.5	229.9	216.3
Opelu	138.8	183.7	248.7	210.7	359.1
Deepwater snappers, groupers	211.9	806.8	600.2	919.4	980.2
Lobsters	131.2	34.0	17.9	666.1	727.7
Aku	422.1	9,506.0	12,059.4	2,105.1	2,342.6
Ahi	31.7	2,627.6	3,497.3	2,652.1	4,262.0
Mahimahi, ono	22.8	334.0	213.4	676.1	902.4

1/ Includes awa, mullet, oio, and moi.

Source: Richard S. Shomura, Hawaii's Marine Fishery Resources: Yesterday (1900) and Today (1986) (National Marine Fisheries Service, Honolulu Laboratory, Southwest Fisheries Center, Administrative Report H-87-21, December 1987). Quoted with permission.

Table 608.-- FISH POPULATIONS AROUND SELECTED SHORELINE AREAS: YEAR ENDED JUNE 30, 1987

Location	Species	Fish per acre	Pounds per acre
Marine Life Conservation Districts:			
Hanauma Bay, Oahu: Inshore	67	6,225	2,769
Offshore	82	1,934	435
Molokini Shoal, Maui	98	3,623	1,039
Honolua-Mokuleia Bays, Maui	58	1,576	509
Manele-Hulopoe Bays, Lanai	101	4,417	1,004
Wailea Bay, Hawaii	81	1,580	364
Lapakahi, Hawaii	96	2,392	353
Kealakekua Bay, Hawaii	103	4,149	628
Artificial reef:			
Maunalua Bay, Oahu: Cee Bee 24 ...	39	(NA)	433
Mud scow	50	(NA)	80
Transect	70	(NA)	406
Waianae, Oahu	(NA)	(NA)	65
Shoreline Fisheries Management Areas:			
Waikiki-Diamond Head, Oahu	(NA)	(NA)	279
Puako Reef, Hawaii (near shore) ...	118	3,294	374
Other areas:			
Barbers Point, Oahu................	78	1,514	140
Olowalu, Maui	56	1,407	156
McGregor Point, Maui	77	1,882	686
Makaiwa Bay, Hawaii	93	2,924	543
Kipu Kai, Kauai	85	2,025	904

NA Not available.
Source follows next table.

Table 609.--MOST ABUNDANT AND HEAVIEST FISH SPECIES AT SPECIFIED LOCATIONS: YEAR ENDED JUNE 30, 1987

[Three leading species at each location, based on both individuals per acre and pounds per acre]

Location and species	Individuals per acre		Pounds per acre	
	Rank	Number	Rank	Number
Waikiki-Diamond Head Shoreline Fisheries Management Area:				
Acanthurus triostegus (manini)	1	256	3	41
Thalassoma duperrey (hinalea lauwili)	2	224	4	19
Acanthurus nigrofuscus (maiii)	3	207	1	56
Naso unicornis (kala)	5	85	2	53
Hanauma Bay Marine Life Conservation District (inshore):				
Kulelia sandvicensis (aholehole)	1	1,201	2	344
Acanthurus triostegus (manini)	2	996	4	193
Thalassoma duperrey (hinalea lauwili)	3	525	(NA)	(NA)
Acanthurus xanthopterus (pualu)	(NA)	(NA)	1	454
Kyphosus sp. (nenue)	(NA)	(NA)	3	232
Kealakekua Bay Marine Life Conservation District:				
Pervagor spilosoma (oililepa)	1	661	7	21
Zebrasoma flavescens (pala)	2	618	2	70
Ctenochaetus strigosus (kole)	3	566	6	23
Melichthys niger (humuhumu ele'ele)	5	258	1	90
Elops hawaiiensis (awaawa)	(NA)	(NA)	3	50

NA Not available.

Source: Hawaii State Department of Land and Natural Resources, Division of Aquatic Resources, Statewide Marine Research and Surveys, Survey of Fish and Habitat, July 1, 1986 to June 30, 1987.

Table 610.-- MINERAL INDUSTRIES: 1958 TO 1982

[Excluding mines at manufactures]

Subject	1958	1963	1967	1972	1977	1982
Number of establishments 1/	20	44	12	15	7	12
With 20 employees or more	8	4	3	5	2	4
All employees:						
Number (1,000)	.4	.3	.2	.3	.1	.2
Payroll (million dollars)	1.7	1.7	1.6	2.4	1.9	3.8
Production, development, and exploration workers:						
Number (1,000)	.4	.2	.2	.2	.1	.1
Hours (millions)	.7	.6	.4	.4	.2	.2
Wages (million dollars)	1.4	1.5	1.3	1.8	1.5	2.6
Value added in mining (million dollars)	4.6	4.9	5.0	9.0	8.1	9.7
Cost of supplies used, purchased machinery installed, etc. (million dollars)	2.0	2.1	2.3	4.1	2.9	5.9
Value of shipments and receipts (million dollars)	5.8	6.5	5.5	11.0	9.7	12.8
Capital expenditures (million dollars)	.7	.5	1.8	2.0	1.3	2.7

1/ After 1963, data for single-unit establishments without paid employees were excluded from the census of mineral industries. Eight of the 12 establishments reported, including all 4 with 20 employees or more, were in SIC 142, crushed and broken stone, including riprap.

Source: U.S. Bureau of the Census, 1982 Census of Mineral Industries, Geographic Area Series, Pacific States, MIC82-A-9 (April 1985), tables 1 and 2a.

Table 611.-- NONFUEL MINERAL PRODUCTION: 1985 to 1987

[Production as measured by mine shipments, sales, or marketable production, including consumption by producers]

Minerals	1985 1/	1986 1/	1987 2/
QUANTITY (1,000 SHORT TONS)			
Total	(X)	(X)	(X)
Cement:			
Masonry	7	7	10
Portland	215	287	300
Gem stones	(NA)	(NA)	(NA)
Lime	(W)	3	(W)
Sand and gravel (construction)	*500	605	*600
Stone (crushed)	5,627	*7,100	6,800
Other industrial minerals	(X)	(X)	(X)
VALUE ($1,000)			
Total	53,272	70,412	72,515
Cement:			
Masonry	588	1,078	1,500
Portland	16,050	24,253	25,300
Gem stones	*25	25	25
Lime	(W)	(W)	(W)
Sand and gravel (construction)	*2,100	2,666	*2,600
Stone (crushed)	34,183	*42,100	42,800
Other industrial minerals	326	290	290

* Estimated.
NA Not available.
W Withheld to avoid disclosing company proprietary data; value included with "other industrial minerals."
X Not applicable.
1/ Revised from Data Book 1987, table 613.
2/ Preliminary.
Source: U.S. Bureau of Mines, "The Mineral Industry of Hawaii," Mineral Industry Survey (January 11, 1988).

Section 21

CONSTRUCTION AND HOUSING

This section presents statistics on construction activity and costs, the size and composition of the housing inventory, occupancy of housing units and office buildings, home sales, and residential financing. Related series are included in Sections 6 and 14.

There were 24,000 building permits issued in 1987, with an estimated value of $1.3 billion. The total included $507 million for new private residential construction and $254 million for private nonresidential structures. The value of government construction contracts awarded was $372 million. Construction put in place, as indicated by the contracting tax base, totaled $1.8 billion in 1986 and $2.1 billion in 1987. The value of land transfers in fiscal 1988 was $8.0 billion. The June 1988 construction cost index for Honolulu (1982=100) was 130 for single-family residences and 125 for high-rise buildings.

The number of housing units in the State increased from 316,000 in 1978 to 385,000 in 1988. Owner occupied units numbered 129,000 in 1978 and 160,000 in 1988; the latter total included 34,000 on leased land. Condominium units, first authorized in 1961, numbered 98,000 by 1987. Cooperative units, first built in 1956, totaled 2,800 in 1987. Government-owned housing, mostly military and public, accounted for 26,000 units as of 1988. Housing has been in short supply throughout most of the past decade: on Oahu, the vacancy rate in May 1986, according to the Federal Home Loan Bank of Seattle, was only 2.3 percent. The median selling price of single-family homes on Oahu during 1987, based on Multiple Listing Service data, was $185,000; for condominium units it was $104,000. The median gross monthly rent for Oahu rose from $141 in 1970 to $413 in 1983, and the median value of owner occupied single-family units increased from $38,400 to $163,400.

The principal sources for these data are the 1970 and 1980 U.S. Censuses of Housing, the 1976, 1979, and 1983 Annual Housing Surveys, postal vacancy surveys issued by the Federal Home Loan Bank of Seattle, various series compiled by State and County agencies (primarily the Hawaii Housing Authority, Hawaii State Department of Business and Economic Development, Department of Commerce and Consumer Affairs, Department of Taxation, and Bureau of Conveyances, and the four county building departments), the construction cost indexes prepared by the First Hawaiian Bank, and the Honolulu Board of Realtors reports on Multiple Listing Service activity. Many of these series are summarized in reports published by the Bank of Hawaii (particularly Construction in Hawaii, issued annually) and the First Hawaiian Bank. Persons interested in figures for earlier periods should consult Historical Statistics of Hawaii, Section 15. Mainland statistics appear in Section 26 of Statistical Abstract of the United States: 1988.

Table 612.-- NUMBER AND VALUE OF BUILDING PERMITS, BY COUNTIES: 1977 TO 1987

Year	State total	City and County of Honolulu	Hawaii County	Kauai County	Maui County
NUMBER ISSUED					
1977	23,406	15,793	3,536	1,173	2,904
1978	25,807	17,758	3,938	1,470	2,641
1979	26,515	18,297	4,062	1,540	2,616
1980	22,771	15,729	3,732	1,210	2,040
1981	21,395	15,141	3,427	1,276	1,551
1982	16,974	11,743	2,581	1,214	1,436
1983	19,733	13,018	2,649	2,165	1,901
1984	20,582	14,404	2,834	1,437	1,907
1985	23,332	16,011	2,933	1,544	2,844
1986	21,461	14,237	2,717	1,486	3,021
1987	23,929	16,197	3,175	1,595	2,962
ESTIMATED VALUE ($1,000)					
1977	534,278	356,591	62,088	32,060	83,539
1978	756,757	421,692	81,965	59,858	193,242
1979	984,559	566,991	144,768	118,453	154,347
1980	1,278,911	745,565	146,395	133,261	253,690
1981	898,428	550,254	136,617	67,844	143,713
1982	714,938	493,139	75,715	55,380	90,704
1983	767,305	410,763	95,979	142,859	117,704
1984	710,661	473,943	102,805	74,076	59,837
1985	990,879	619,689	132,735	59,522	178,933
1986	1,161,489	674,057	231,997	101,315	154,120
1987	1,268,927	836,328	146,035	109,574	176,990

Source: City and County of Honolulu Department of Buildings, Summary of Building Permits (annual); Hawaii, Kauai, and Maui County departments of public works, records.

Table 613.-- VALUE OF BUILDING PERMITS, BY TYPE, BY COUNTIES: 1987

[Thousands of dollars. Limited to private construction, including additions, alteration, and repairs]

Category	State total	City and County of Honolulu	Hawaii County	Kauai County	Maui County
Total	1,161,897	749,471	145,158	103,481	163,787
Residential	506,957	258,151	96,845	57,982	93,979
Hotel	90,136	64,337	-	10,201	15,598
Non-residential	254,300	189,835	25,543	13,897	25,024
Additions and alterations	310,504	237,148	22,770	21,400	29,186

Source: Calculated by Hawaii State Department of Business and Economic Development from county "Monthly Cooperative Report of Local Construction" submitted to F.W. Dodge Division, McGraw-Hill Information Systems Company.

Table 614.-- GENERAL EXCISE TAX BASE FOR CONTRACTING: 1977 TO 1987

[In thousands of dollars. Data are on a cash basis accounting]

Year 1/	Amount	Year 1/	Amount	Year 1/	Amount
1977 2/	983,618	1981 ..	1,613,764	1985 ..	1,367,733
1978 2/	1,060,898	1982 ..	1,294,871	1986 ..	1,808,024
1979 ..	1,325,460	1983 ..	1,353,405	1987 ..	2,142,964
1980 ..	1,569,658	1984 ..	1,242,929		

1/ Calendar year in which reported, including "prior years" reports. Income received in December is reported the following January, hence these annual totals generally refer to income received in the 12-month period ended November 30.

2/ Partly estimated.

Source: Hawaii State Department of Taxation, "General Excise and Use Tax Base" (annual tabular release).

Table 615.-- GOVERNMENT CONSTRUCTION CONTRACTS AWARDED, BY AWARDING AGENCY AND LOCATION OF CONSTRUCTION: 1983 TO 1987

[In thousands of dollars. By date of publication]

Awarding agency and location	1983	1984	1985	1986	1987
Total	277,877	411,753	248,499	425,146	372,164
Awarding agency:					
Federal agencies	84,723	129,969	74,841	101,943	107,874
State agencies	126,766	196,674	93,785	205,443	174,207
City and County of Honolulu	49,531	64,715	47,784	90,413	79,090
Other counties	16,856	20,394	32,090	27,346	10,994
Location of construction:					
City and County of Honolulu	218,995	315,510	177,650	313,444	293,358
County of Hawaii	20,364	22,981	17,872	61,041	32,261
County of Kauai	7,994	43,147	15,264	33,765	21,080
County of Maui	30,524	30,114	37,713	16,895	25,466

Source: Compiled by Hawaii State Department of Business and Economic Development from Trade Publishing Company, BID Service Weekly.

Table 616.-- SUMMARY STATISTICS FOR CONSTRUCTION INDUSTRIES AND SUBDIVIDERS AND DEVELOPERS: 1967 TO 1982

[Excludes establishments without payroll]

Subject	1967	1972	1977	1982
Number of establishments in business during year	1,220	1,570	1,732	1,861
Proprietors and working partners	718	590	530	396
All employees	17,171	25,012	20,792	18,665
Construction workers, average.......	14,430	20,163	15,784	13,953
Other employees, March	2,666	4,949	5,032	4,711
Payroll ($1,000,000)	133.6	282.6	323.4	409.7
All business receipts ($1,000,000) ...	543.3	1,085.5	1,435.2	1,853.3
Value added ($1,000,000)	230.3	477.5	636.2	855.2

Source: U.S. Bureau of the Census, 1982 Census of Construction Industries, Pacific States, CC82-A-9 (April 1985), Hawaii table 4.

Table 617.-- SUMMARY STATISTICS FOR CONSTRUCTION INDUSTRIES AND SUBDIVIDERS AND DEVELOPERS, BY INDUSTRY: 1977 AND 1982

[Includes establishments both with and without payroll]

SIC code	Industry	Number	Proprietors and working partners	All employees	All business receipts ($1,000)
	1977				
	Construction industries and subdividers and developers	3,170	2,020	20,792	1,508,865
15-17	Construction industries 1/	3,029	1,848	20,187	(D)
15	General building contractors and operative builders	843	459	7,944	779,765
16	Heavy construction, general contractors	114	50	2,319	(D)
17	Special trade contractors	2,072	1,340	9,924	469,029
6552	Subdividers and developers, n.e.c. 2/	145	172	607	(D)
	1982				
	Construction industries and subdividers and developers	4,259	2,799	18,665	2,032,087
15-17	Construction industries 1/	4,092	2,645	18,340	1,894,673
15	General building contractors and operative builders	1,020	564	6,290	944,585
16	Heavy construction, general contractors	133	67	1,768	179,221
17	Special trade contractors	2,939	2,014	10,282	770,867
6552	Subdividers and developers, n.e.c. 2/	162	154	323	137,412

D Withheld to avoid disclosing data for individual companies.

1/ For establishments without payroll, may also include data for construction establishments not classified to two-digit industry detail.

2/ For establishments without payroll, may also include data for an unknown number of cemetery subdividers and developers.

Source: U.S. Bureau of the Census, 1982 Census of Construction Industries, Pacific States, CC82-A-9 (April 1985), Hawaii table I.

Table 618.-- PRIVATE RESIDENTIAL CONSTRUCTION AND DEMOLITION AUTHORIZED BY PERMITS, BY COUNTIES: 1983 TO 1987

Category and year authorized	State total	City and County of Honolulu	Other counties			
			Total	Hawaii	Kauai	Maui
New 1-family dwellings:						
1983	3,387	1,562	1,825	880	398	547
1984	4,117	2,197	1,920	900	382	638
1985	4,663	2,313	2,350	979	387	984
1986	4,985	2,024	2,961	1,127	417	1,417
1987	5,813	2,684	3,129	1,391	543	1,195
New duplex units:						
1983	138	60	78	58	6	14
1984	146	112	34	28	4	2
1985	208	112	96	64	-	32
1986	166	112	54	18	2	34
1987	182	124	58	50	6	2
New apartments:						
1983	1,341	1,220	121	38	73	10
1984	1,134	942	192	153	35	4
1985	2,388	1,744	644	129	84	431
1986 1/	2,570	2,076	494	22	-	472
1987	1,671	785	886	314	-	572
Units demolished:						
1983 2/	505	385	120	54	4	62
1984	528	429	99	50	5	44
1985 3/	555	455	100	38	12	50
1986 4/	690	534	156	43	60	53
1987 5/	825	741	84	40	2	42

1/ Revised.

2/ Excludes 16 structures destroyed by volcanic activity in Hawaii County.

3/ Excludes 11 homes in Hilo destroyed by high winds, February 16, 1986.

4/ Excludes 14 structures destroyed by volcanic activity and 1 by high winds, all in Hawaii County.

5/ Excludes 18 units destroyed by volcanic activity in Hawaii County.

Source: Compiled from County building departments by the Hawaii State Department of Business and Economic Development.

Table 619.-- ESTIMATED VALUE PER HOUSING UNIT, BY TYPE OF STRUCTURE, FOR BUILDING PERMITS ISSUED BY THE CITY AND COUNTY OF HONOLULU: 1982 TO 1987

[In dollars. Excludes building permits for additions, alterations and repair]

Type of structure	1982	1983	1984	1985	1986	1987
One-family	59,719	68,819	70,230	67,783	80,119	80,719
Two-family	85,511	62,808	53,230	58,337	59,184	64,490
Multi-family	44,727	50,552	37,892	46,089	47,789	42,507

Source: City and County of Honolulu Department of Building, "Summary of Building Permits" (annual tabular release).

Table 620.-- HONOLULU CONSTRUCTION COST INDEXES: 1982 TO 1988

[1982=100. Data are annual averages unless otherwise specified]

Year	Single-family residence			High-rise building		
	All components	Materials prices	Labor 1/	All components	Materials prices	Labor 1/
1982	100.0	100.0	100.0	100.0	100.0	100.0
1983	109.5	111.3	107.3	106.9	107.4	106.9
1984	114.3	113.1	115.8	110.9	108.0	114.5
1985	117.4	115.2	120.1	113.5	108.7	118.4
1986	121.5	119.1	124.4	116.8	110.8	122.6
1987	125.7	123.7	128.2	120.7	114.9	125.8
1988 2/	129.6	127.4	132.4	124.6	117.6	130.6

1/ Wages and benefits.
2/ June.
Source: First Hawaiian Bank, Research Department, records.

Table 621.-- NUMBER OF CONDOMINIUM UNITS BUILT AND STANDING: 1961 TO 1982

Year	Built during year	Standing, end of year	Year	Built during year	Standing, end of year
1961	-	-	1972	2,835	22,473
1962	182	182	1973	6,741	29,214
1963	41	223	1974	9,275	38,489
1964	1,557	1,780	1975	10,798	49,287
1965	1,091	2,871	1976	7,357	56,644
1966	2,061	4,871	1977	3,321	59,965
1967	1,545	6,477	1978	3,210	63,175
1968	2,181	8,658	1979	6,816	69,991
1969	1,754	10,412	1980	10,441	80,432
1970	4,908	15,320	1981	9,704	90,136
1971	4,318	19,638	1982	7,795	97,931

Source: Bank of Hawaii, Construction in Hawaii, 1983 (1983), p. 7.

Table 622.-- HOUSING UNITS CONVERTED FROM RENTAL UNITS TO CONDOMINIUM UNITS: 1963 TO 1987

Subject	1963-1981	1982	1983	1984	1985	1986	1987
Projects	234	12	12	32	18	36	35
Housing units	10,547	227	596	607	117	151	398

Source: 1963-1980 compiled by Real Estate Research Center, College of Business Administration, University of Hawaii, from the records of the Hawaii Real Estate Commission; 1981 and later years from Hawaii State Department of Commerce and Consumer Affairs, Professional and Vocational Licensing Division, Real Estate Commission, records.

Table 623.-- CONDOMINIUM PROJECTS REGISTERED WITH THE STATE OF HAWAII: 1983 TO 1987

Subject	1983	1984	1985	1986	1987
Projects	56	76	69	87	94
Residential units	3,024	2,662	1,477	1,346	2,289
Business or commercial units	410	149	269	405	1/ 153

1/ Includes 110 units in an agricultural condominium project which can be used for residential or business/commercial purposes.

Source: Hawaii State Department of Commerce and Consumer Affairs, Professional and Vocational Licensing Division, Real Estate Commission, records.

Table 624.-- TIME SHARE PROPERTIES AND UNITS, BY GEOGRAPHIC AREAS: SEPTEMBER 26, 1988

[Time sharing refers to the use, occupancy, or possession of accommodations among various persons for less than 60 days in any year, for any occupant]

Geographic area	Properties	Units
State total	93	3,229
Oahu	25	1,570
Waikiki	21	1,353
Rest of Oahu	4	217
Hawaii	5	126
Kauai	23	899
Maui	40	634

Source: State Department of Commerce and Consumer Affairs, Professional and Vocational Licensing Division, Time Sharing Office, records.

Table 625.-- CONDOMINIUM AND COOPERATIVE HOUSING UNITS, BY COUNTIES: 1987

Type of housing unit	State total	Honolulu	Maui	Hawaii	Kauai
Condominium units 1/	98,111	74,325	14,100	5,629	4,057
Cooperative units	2,832	2,738	94	-	-

1/ Includes some nonresidential condominium units.
Source follows next table.

Table 626.-- CONDOMINIUM HOUSING UNITS, TOTAL AND OWNER OCCUPIED, BY LAND OWNERSHIP, BY COUNTIES: 1987

[Includes some nonresidential condominium units]

Ownership of land and condominium unit	State total	Honolulu	Maui	Hawaii	Kauai
All condo units	98,111	74,325	14,100	5,629	4,057
On fee simple land	34,856	22,988	6,462	3,314	2,092
On leased land	59,395	49,825	6,120	1,803	1,647
Other categories 1/	3,860	1,512	1,518	512	318
Owner occupied condo units	26,424	25,203	753	369	99
On fee simple land	9,690	8,912	475	251	52
On leased land	16,734	16,291	278	118	47

1/ Such as fee and leasehold condominium units sold on agreement of sale.
Source: Legislative Reference Bureau, Ownership Patterns of Land Beneath Hawaii's Condominium and Cooperative Housing Projects (Report No. 6, 1987), pp. 8, 10-12, and 27.

Table 627.-- TENURE AND CONTROL OF HOUSING UNITS: 1970 TO 1988

[Data include condominium units occupied or intended for occupancy by nonresidents]

Year	All housing units 1/	Owner occupied units 2/		Renter occupied and vacant units		
		Land owned	Land leased	Private 3/	Federal 4/	State and County 4/
1970 ..	216,774	68,422	20,802	106,821	14,439	6,290
1971 ..	228,749	72,086	21,732	113,531	15,089	6,311
1972 ..	238,770	75,939	24,565	117,111	14,959	6,196
1973 ..	250,742	78,878	26,776	123,934	15,071	6,083
1974 ..	266,828	82,494	30,333	131,368	16,373	6,260
1975 ..	284,120	85,264	30,543	145,276	16,386	6,651
1976 ..	298,339	88,284	33,730	152,578	17,225	6,522
1977 ..	306,989	89,980	34,549	158,223	17,493	6,744
1978 ..	315,513	92,989	35,869	161,728	18,653	6,274
1979 ..	324,261	96,273	36,540	165,045	19,022	7,381
1980 ..	334,235	100,478	36,986	170,963	19,437	6,371
1981 ..	342,873	104,677	37,413	174,753	19,427	6,603
1982 ..	348,980	106,147	37,372	179,579	19,392	6,490
1983 ..	353,414	108,761	35,586	183,249	19,304	6,514
1984 ..	359,107	111,767	35,545	185,657	19,294	6,844
1985 ..	364,436	114,548	35,681	187,905	19,280	7,022
1986 ..	370,548	117,090	35,811	191,475	19,264	6,908
1987 5/	377,898	121,019	35,959	194,582	19,265	7,073
1988 ..	385,290	126,563	33,579	198,707	19,394	7,047

1/ As of April 1.

2/ As indicated by the number of taxpayers claiming home exemptions. The number of owner occupied housing units reported by the U.S. Census of Housing is somewhat higher than the corresponding number based on taxpayer home exemptions, chiefly because of differences in definitions. Data for 1977 and later years refer to January 1; data for 1970-1976, to July 1.

3/ Calculated as a residual after accounting for the known components, some of which pertain to dates other than April 1, and thus not attributable to any specific date.

4/ As of April 1. Data include housing units leased from private owners.

5/ Revised.

Source: Hawaii State Department of Business and Economic Development, Housing Unit Estimates for Hawaii, 1970-1988 (Statistical Report 210, November 1988), table 1.

Table 628.-- HOUSING UNITS STANDING, BY COUNTIES: ANNUALLY, 1970 TO 1988

[As of April 1. Data include condominium units occupied or intended for occupancy by nonresidents]

Year	State total	City and County of Honolulu	Other counties			
			Total	Hawaii	Kauai	Maui
1970 ..	216,774	174,742	42,032	18,972	9,021	14,039
1971 ..	228,749	184,101	44,648	20,061	9,298	15,289
1972 ..	238,770	190,973	47,797	21,648	9,555	16,594
1973 ..	250,742	198,970	51,772	23,578	10,092	18,102
1974 ..	266,828	210,940	55,888	25,282	10,700	19,906
1975 ..	284,120	223,647	60,473	26,694	11,347	22,432
1976 ..	298,339	232,669	65,670	28,131	11,934	25,605
1977 ..	306,989	237,571	69,418	29,453	12,433	27,532
1978 ..	315,513	243,103	72,410	30,579	12,841	28,990
1979 ..	324,261	247,465	76,796	32,283	13,610	30,903
1980 ..	334,235	252,038	82,197	34,215	14,828	33,154
1981 ..	342,873	254,969	87,904	36,180	16,314	35,410
1982 ..	348,980	256,967	92,013	37,738	17,081	37,194
1983 ..	353,414	259,574	93,840	38,702	16,937	38,201
1984 ..	359,107	262,902	96,205	39,762	17,539	38,904
1985 ..	364,436	266,127	98,309	40,820	17,979	39,510
1986 ..	370,548	269,390	101,158	41,944	18,446	40,768
1987 1/	377,898	273,054	104,844	43,135	18,929	42,780
1988 ..	385,290	276,509	108,781	44,700	19,476	44,605

1/ Revised.

Source: Hawaii State Department of Business and Economic Development, Housing Unit Estimates for Hawaii, 1970-1988 (Statistical Report 210, November 1988), table 2.

Table 629.-- TENURE AND CONTROL OF HOUSING, BY COUNTIES: 1986 TO 1988

[As of April 1. Condominium units occupied or intended for occupancy by nonresidents are included in these estimates]

County	All housing units	Owner occupied units 1/		Renter occupied and vacant units		
		Land owned	Land leased	Private	Federal	State and County
1986						
State total ..	370,548	117,090	35,811	191,475	19,264	6,908
City & Co. of Hon.	269,390	79,929	33,644	131,529	19,134	5,154
County of Hawaii ..	41,944	18,210	1,200	21,528	50	956
County of Kauai ...	18,446	6,809	248	10,995	65	329
County of Maui	40,768	12,142	719	27,423	15	469
1987 (revised)						
State total ..	377,898	121,019	35,959	194,582	19,265	7,073
City & Co. of Hon.	273,054	82,728	33,656	132,213	19,135	5,322
County of Hawaii ..	43,135	18,704	1,241	22,174	50	966
County of Kauai ...	18,929	7,002	273	11,260	65	329
County of Maui	42,780	12,585	789	28,935	15	456
1988						
State total ..	385,290	126,563	33,579	198,707	19,394	7,047
City & Co. of Hon.	276,509	87,096	31,180	133,664	19,264	5,305
County of Hawaii ..	44,700	19,187	1,244	23,255	50	964
County of Kauai ...	19,476	7,237	305	11,541	66	327
County of Maui	44,605	13,043	850	30,247	14	451

1/ As indicated by the number of taxpayers claiming home exemptions, as of January 1.

Source: Hawaii State Department of Business and Economic Development, Housing Unit Estimates for Hawaii, 1970-1988 (Statistical Report 210, November 1988), table 4.

Table 630.-- RESIDENT AND NONRESIDENT HOUSING UNITS, BY COUNTIES: 1977 TO 1988

Category and year	State total	City and County of Honolulu	Other counties: Total	Hawaii	Kauai	Maui
RESIDENT 1/						
1977	301,904	237,059	64,845	29,123	11,843	23,879
1978	308,444	241,573	66,871	30,008	12,062	24,801
1979	315,728	245,101	70,627	31,548	12,623	26,456
1980	322,598	247,152	75,446	33,594	13,395	28,457
1981	328,679	249,330	79,349	34,921	14,458	29,970
1982	334,580	251,280	83,300	36,254	15,402	31,644
1983	340,001	254,827	85,174	36,933	15,931	32,310
1984	341,505	256,015	85,490	37,860	15,941	31,689
1985	342,632	257,111	85,521	38,541	15,903	31,077
1986	347,549	259,552	87,997	39,892	15,872	32,233
1987 2/	356,002	263,818	92,184	41,033	16,298	34,853
1988	364,170	268,874	95,296	42,346	16,621	36,329
NONRESIDENT 3/						
1977	5,085	512	4,573	330	590	3,653
1978	7,069	1,530	5,539	571	779	4,189
1979	8,533	2,364	6,169	735	987	4,447
1980	11,637	4,886	6,751	621	1,433	4,697
1981	14,194	5,639	8,555	1,259	1,856	5,440
1982	14,400	5,687	8,713	1,484	1,679	5,550
1983	13,413	4,747	8,666	1,769	1,006	5,891
1984	17,602	6,887	10,715	1,902	1,598	7,215
1985	21,804	9,016	12,788	2,279	2,076	8,433
1986	22,999	9,838	13,161	2,052	2,574	8,535
1987	21,896	9,236	12,660	2,102	2,631	7,927
1988	21,120	7,635	13,485	2,354	2,855	8,276

1/ Estimated as of April 1. Includes all housing units other than condominium units in rental pools and intended for transient occupancy.

2/ Revised.

3/ Condominium units in rental pools and intended for transient occupancy, based on February survey data from the Hawaii Visitors Bureau.

Source: Hawaii State Department of Business and Economic Development, Housing Unit Estimates for Hawaii, 1970-1988 (Statistical Report 210, November 1988), table 3.

Table 631.-- CHARACTERISTICS OF THE HOUSING INVENTORY, FOR OAHU: 1970, 1976, 1979, AND 1983

[Oahu was dropped from this survey after 1983]

Subject	1983	1979	1976	1970
All housing units	262,900	248,100	219,600	174,200
TENURE AND VACANCY STATUS				
All year-round housing units	262,800	247,900	219,300	174,100
Occupied	245,800	231,000	200,400	164,800
Owner occupied	120,600	117,200	96,100	74,200
Percent	49.0	50.7	47.9	45.0
Cooperatives and condominiums	21,500	20,700	13,900	(NA)
Renter occupied	125,200	113,800	104,300	90,600
Vacant year-round 1/	17,000	16,900	18,900	9,300
For sale only	1,200	900	5,100	1,100
Homeowner vacancy rate	0.9	0.8	5.0	1.5
For rent	6,200	7,300	6,600	4,500
Rental vacancy rate	4.7	6.0	6.0	4.7
Other vacant 1/	9,500	8,800	7,200	3,700
STRUCTURAL CHARACTERISTICS				
Units in structure: percent 1, detached	47.5	50.9	52.5	56.7
Year built: percent 1939 or earlier	9.8	11.1	12.6	15.7
Plumbing facilities: percent lacking some or all	0.8	1.5	1.6	3.0
Bathrooms: percent 2 or more	34.7	34.4	32.3	26.4
Kitchen facilities: percent incomplete or shared	2.1	2.1	2.7	2.9
Rooms: median	4.7	4.7	4.7	4.6
Bedrooms: percent 3 or more	50.4	51.8	53.5	50.9
Heating equipment: percent none	98.0	97.4	97.1	95.5
Air conditioning: percent none	82.0	81.3	81.8	86.7
Basement: percent none	89.3	91.4	92.1	(NA)
Public sewer: percent not linked	8.6	8.4	11.2	14.4
OCCUPANCY CHARACTERISTICS				
Persons per occupied unit	3.08	3.18	3.30	3.60
Percent 1.01 or more persons per room:				
Owner occupied	5.6	6.4	7.5	15.5
Renter occupied	10.9	11.2	12.1	22.0
Percent moved into unit past 12 months:				
Owner occupied	5.1	9.2	8.6	(NA)
Renter occupied	30.4	34.5	39.8	(NA)

Continued on next page.

Table 631.-- CHARACTERISTICS OF THE HOUSING INVENTORY, FOR OAHU:
1970, 1976, 1979 AND 1983 -- Con.

Subject	1983	1979	1976	1970
FINANCIAL CHARACTERISTICS				
Median income of families and primary individuals:				
Owner occupied	$38,000	$28,900	$23,600	$14,900
Renter occupied	$16,000	$12,800	$11,000	$8,000
Owner occupied 1-unit structures:				
Median value	$163,400	$125,600	$79,600	$38,400
Median value-income ratio	4.1	4.2	3.1	2.6
Median selected monthly housing costs --				
Units with a mortgage	$617	$474	$381	(NA)
Units with no mortgage	$157	$102	$81	(NA)
Renter occupied:				
Median gross rent	$413	$278	$234	$141
Nonsubsidized units	$425	$288	$241	(NA)
Gross rent as percent of income	31	26	26	22
Nonsubsidized	31	26	27	(NA)
Median contract rent	$372	$254	$216	$132

NA Not available.

1/ Includes units rented or sold but not occupied, units held for occasional use, and units occupied entirely by persons with usual place of residence elsewhere.

Source: U.S. Bureau of the Census, Annual Housing Survey: 1983, Honolulu, Hawaii, SMSA (Current Housing Reports, H-170-83-48, June 1985), Part A, tables A-1 and A-2; Annual Housing Survey: 1979, Honolulu, Hawaii, SMSA (Current Housing Reports, H-170-79-48, August 1983), Part A, tables A-1 and A-2.

Table 632.-- GENERAL HOUSING CHARACTERISTICS, BY COUNTIES: 1980

Subject	State total 1/	Honolulu	Hawaii	Kauai	Maui
Persons in occupied units	925,092	725,865	90,436	38,679	70,008
Per occupied unit	3.15	3.15	3.09	3.22	3.11
Total housing units	334,235	252,038	34,215	14,828	33,033
Year-round housing units:					
Number	332,213	250,866	33,954	14,544	32,728
Median rooms	4.4	4.3	4.7	4.6	3.9
One unit at address (percent) ..	59.5	56.6	76.1	81.1	54.9
Lacking complete plumbing for exclusive use (percent)	2.3	1.5	7.0	4.8	2.9
Occupied housing units:					
Number	294,052	230,214	29,237	12,020	22,510
With 1.01 or more persons per room (percent)	15.3	15.5	13.0	15.2	16.4
Owner-occupied units:					
Number	151,954	114,831	17,731	6,429	12,963
Percent of occupied units	51.7	49.9	60.6	53.5	57.6
Median value 2/ ($1,000)	118.1	129.5	71.2	89.7	112.1
Renter-occupied units:					
Number	142,098	115,383	11,506	5,591	9,547
Median contract rent 3/ (dollars)	271	276	220	176	306
Vacant units, total 4/	38,161	20,652	4,717	2,524	10,218
For sale only	2,153	1,321	455	98	278
Homeowner vacancy rate	1.4	1.1	2.5	1.5	2.1
For rent	16,289	9,002	1,883	1,490	3,913
Rental vacancy rate	10.3	7.2	14.1	21.0	29.1
Rented or sold, awaiting occupancy	4,518	2,415	835	321	946
Held for occasional use	4,409	2,311	853	318	906
Other vacant	10,792	5,603	691	297	4,175
Condominium units, total	71,708	56,390	3,072	1,853	10,393
Owner-occupied	24,730	23,474	298	86	872
Renter-occupied	22,053	19,812	726	154	1,361
Vacant 4/	24,925	13,104	2,048	1,613	8,160

Footnotes and source on next page.

Table 632.-- GENERAL HOUSING CHARACTERISTICS, BY COUNTIES: 1980 -- Con.

1/ Includes Kalawao County (121 housing units), not shown separately.

2/ Estimated market value of property (house and lot), for one-family houses on less than 10 acres. The median value of owner-occupied condominium units was $98,600.

3/ Excluding no cash rent.

4/ Units temporarily occupied, or intended for occupancy, entirely by persons who have a usual residence elsewhere are classified as vacant. Shared ownership or time-sharing condominiums are classified as "vacant, held for occasional use."

Source: U.S. Bureau of the Census, 1980 Census of Housing, General Housing Characteristics, Hawaii, HC80-1-A13 (July 1982), tables 1, 5, 7, 46 and 48.

Table 633.-- HAWAII HOUSING AUTHORITY OPERATIONS: 1985 TO 1987

Subject	1985	1986	1987
Total units owned by HHA, June 30	5,735	5,773	1/ 5,930
Occupied	5,682	5,702	5,870
Population in units, June 30	18,237	18,147	17,648
Per occupied unit	3.2	3.2	3.0
Total assets, June 30 ($1,000)	691,000	754,000	718,000
Operating revenues of HHA, fiscal year: 2/			
Gross ($1,000)	12,608	12,706	12,734
Net ($1,000)	620	948	870
Operating revenues per unit per month, fiscal year (dollars) 2/	205.04	206.68	183.41
Rent charged per unit per month, fiscal year (dollars) 2/	134.65	182.50	162.81

1/ Federal low-rent, 5,189; State-subsidized, 510; and other, 231.

2/ Federal projects only; revenue amounts include Federal subsidies.

Source: Housing Finance and Development Corporation, records.

Table 634.-- HOUSING VACANCY SURVEYS OF OAHU: 1977 TO 1986

[Sponsored by the Federal Home Loan Bank of Seattle and conducted by U.S. mail carriers. Data for 1977-1981 have been adjusted to include newly completed but vacant units, omitted from base in earlier reports. No survey was published for 1984, 1985, and 1987, and none is scheduled for 1988]

Year and month	Total units	Vacant units				Units under construction
		Used and new		Used	New	
		Number	Percent			
1977: April 1/ ...	215,923	5,472	2.5	3,399	2,073	2,228
1978: March	226,103	5,178	2.3	3,312	1,866	4,820
1979: May	233,631	4,081	1.7	2,584	1,497	4,754
1980: March	238,028	5,104	2.1	3,039	2,065	3,980
1981: March	240,354	5,235	2.2	3,306	1,929	2,400
1982: March	244,077	4,130	1.7	2,665	1,465	1,087
1983: March	241,355	3,253	1.3	2,558	695	2,002
1986: May	250,500	5,750	2.3	4,593	1,157	877
TYPE OF UNIT: 1986						
Single-family units	141,938	1,489	1.0	1,166	323	438
Multi-family units	108,554	4,261	3.9	3,427	834	439
Mobile homes	8	-	0	0	...	...

1/ Dated March 1977 in the original report but April 1977 thereafter. For survey data for 1955-1976, see Historical Statistics of Hawaii, p. 397.

Source: Federal Home Loan Bank of Seattle, Honolulu Housing Vacancy Survey (annual), as adjusted to 1982-1986 definitions.

Table 635.-- VACANCY RATES FOR HOUSING ON OAHU AND THE NEIGHBOR ISLANDS: ANNUAL AVERAGES, 1970 TO 1987

[Based on housing units sampled for the Hawaii Health Surveillance Program survey. Units occupied by households temporarily absent were classified as occupied. The base excludes units occupied by transients]

Year	Units sampled			Percent vacant		
	State total	Oahu	Other islands	State average	Oahu	Other islands
1970 1/ ..	6,107	3,217	2,890	3.2	3.5	3.0
1971	5,370	2,493	2,877	3.6	3.2	5.1
1972	7,177	5,423	1,754	3.9	3.5	5.4
1973	6,735	5,456	1,279	3.1	2.6	5.0
1974	6,301	4,982	1,319	4.1	3.9	4.7
1975	6,632	5,360	1,272	5.6	5.2	6.9
1976 2/ ..	2,440	1,817	623	5.1	5.0	5.6
1977	6,899	4,526	2,373	5.9	6.1	5.1
1978	6,690	4,102	2,588	4.0	3.8	4.5
1979	5,936	3,519	2,417	3.2	2.8	4.4
1980	6,499	3,613	2,886	4.2	3.9	5.0
1981	6,174	3,195	2,979	4.8	4.4	5.8
1982	6,509	3,468	3,041	3.9	3.4	5.4
1983	6,139	3,147	2,992	3.8	3.1	5.8
1984 3/ ..	7,238	3,827	3,411	4.5	3.1	6.5
1985	7,485	3,872	3,613	5.0	4.7	5.7
1986	7,143	3,653	3,490	4.5	4.5	4.5
1987	7,441	3,738	3,703	4.8	4.3	6.1

1/ Neighbor Island data based on last 9 months of 1970.

2/ Survey suspended during the first 6 months of 1976.

3/ Sample excluded housing units on military bases, included in other years.

Source: Hawaii State Department of Health, Hawaii Health Surveillance Program, records.

Table 636.-- PERSONS AND HOUSEHOLD HEADS, TOTAL AND CIVILIAN, CHANGING RESIDENCE IN PAST YEAR: 1976 TO 1986

[Excludes persons in institutions or barracks, in Kalawao, or on Niihau]

Year surveyed	Movers		Percent moving 1/	
	Total	Civilians 2/	Total	Civilians 2/
Persons 1 year old and over:				
1976	139,922	110,100	16.6	14.4
1977	153,357	112,867	18.3	15.3
1978	148,048	110,451	15.5	14.7
1979	139,025	103,705	16.2	13.3
1980	122,691	89,981	13.5	11.1
1981	137,717	105,767	15.0	12.8
1982	147,684	115,685	15.8	13.8
1983	135,496	96,824	14.1	11.4
1984 3/	140,509	101,730	14.4	11.6
1985 4/	133,466	101,840	13.6	11.5
1986	130,796	99,990	13.1	11.1
Household heads:				
1976	49,456	39,738	18.8	16.5
1977	53,482	40,102	19.8	16.6
1978	48,875	36,968	18.9	16.0
1979	45,908	34,069	17.2	14.0
1980	40,654	29,370	14.3	11.5
1981	48,264	36,780	16.5	14.0
1982	51,817	39,870	17.2	14.7
1983	45,692	32,155	14.7	11.7
1984 3/	45,798	34,637	15.3	12.8
1985 4/	42,923	31,778	14.4	11.8
1986	42,552	31,949	13.7	11.4

1/ Based on number reporting place of residence one year earlier.

2/ Based on military status when surveyed. Excludes members of the armed forces and their dependents.

3/ Persons in households living on military bases were omitted from the 1984 survey, although included in other years. For purposes of this table, such persons were assumed to have the same response distribution as members of military households living in the civilian community.

4/ Revised from Data Book 1986, table 613.

Source: Hawaii State Department of Health, Hawaii Health Surveillance Program, records.

Table 637.-- MOBILITY OF HOUSEHOLD HEADS, BY MILITARY STATUS AND COUNTIES: 1986

[Based on place of residence one year prior to survey date. Expanded from a sample of 5,661 households. Excludes persons in institutions or military barracks, in Kalawao, or on Niihau]

Island and military status of household head 1/	All household heads	Non-movers	Movers		Mobility not reported
			Number	Percent 2/	
State total	314,376	268,092	42,552	13.7	3,732
Military	31,576	20,316	10,512	34.1	748
Civilian	282,685	247,776	31,949	11.4	2,960
Status not reported	115	-	91	100.0	24
Oahu	236,947	201,019	32,777	14.0	3,151
Military	31,471	20,295	10,428	33.9	748
Civilian	205,385	180,724	22,258	11.0	2,403
Status not reported	91	-	91	100.0	-
Other islands	77,429	67,073	9,775	12.7	581
Hawaii	35,407	31,132	3,978	11.3	297
Kauai	14,834	13,091	1,728	11.7	15
Maui, Molokai, and Lanai	27,188	22,850	4,069	15.1	269

1/ Military status of household head at the time of the survey.
2/ Based on number reporting.
Source: Hawaii State Department of Health, Hawaii Health Surveillance Program, special tabulation.

Table 638.-- REAL ESTATE LICENSES, ACTIVE AND INACTIVE, BY TYPE OF LICENSE AND LOCATION: JUNE 1988

Type of license	Active	Inactive
Total	14,428	8,778
Broker:		
Individual ...	4,301	770
Corporation or partnership	1,149	103
Salesman	8,979	7,906

Location	Active	Inactive
Oahu	10,901	5,865
Hawaii	1,312	866
Maui	1,558	615
Kauai	559	349
Molokai	52	9
Lanai	3	-
U.S. mainland ...	39	1,039
Foreign	4	35

Source: Hawaii State Department of Commerce and Consumer Affairs, Professional and Vocational Licensing Division, October 13, 1988.

Table 639.-- BUILDING VACANCY RATES FOR COMPETITIVE OFFICE SPACE AND RETAIL SPACE, FOR HONOLULU, BY LOCATION: 1985 TO 1988

[Rates are percent of space reported vacant in survey]

Type of space and location	May 1985	Oct. 1985	May 1986	Oct. 1986	May 1987	Oct. 1987	May 1988
Competitive office:							
Downtown	15.9	11.5	11.4	10.7	7.0	5.7	5.0
Downtown to Waikiki	9.1	9.1	6.4	6.1	6.9	5.6	4.1
Waikiki	1.5	3.5	5.1	4.2	1.5	4.1	3.5
Other	19.1	22.6	18.0	11.0	16.0	13.9	10.0
Retail:							
Downtown	1.1	7.5	6.5	4.4	6.0	5.7	4.3
Downtown to Waikiki	4.4	5.0	13.0	7.5	7.0	8.1	7.8
Waikiki	11.2	15.4	9.1	14.8	15.8	5.0	18.9
Other	0.0	(NA)	1.8	8.1	3.7	1.3	1.5

NA Not available.

Source: Semi-annual survey by Hastings, Martin, Conboy, Braig & Associates, Ltd., cited in Building Owners & Managers Associaton, Hawaii, Newsletter, August 1988.

Table 640.-- OFFICE AND INDUSTRIAL SPACE AND RENTAL RATES, FOR OAHU: 1987

Use and geographic area	Existing space (1,000 sq. ft.)	Vacant space		New construction (1,000 sq. ft.)		Rental rates (dollars per sq. ft. per mo.)	
		1,000 sq. ft.	Percent	1988	1987	Low	High
Office space 1/ ...	9,368	809	8.6	385	560	1.04	2.25
Downtown	4,568	257	5.6	165	95	1.50	2.25
King corridor ...	717	16	2.2	-	-	1.40	1.91
Kapiolani	1,074	31	2.9	220	-	1.25	2.20
Waikiki	527	9	1.7	-	-	1.60	2.00
Industrial space 1/	28,644	700	2.4	1,580	513	0.35	1.00
Town	14,002	432	3.1	30	89	0.55	1.00
Airport	9,067	140	1.5	739	110	0.55	0.75
Leeward	3,813	93	2.4	456	14	0.35	0.70

1/ Includes areas not shown separately.

Source: Grubb & Ellis, Hawaii Real Estate 1988, pp. 6 and 10.

Table 641.-- MEDIAN PURCHASE PRICE OF EXISTING ONE-FAMILY HOMES, FOR OAHU: 1981 TO 1987

[Based on surveys of conventional first mortgages]

Subject	1981	1982	1983	1984	1985	1986	1987
Amount ($1,000)	117.8	129.1	135.0	138.7	150.6	161.6	177.6
Rank 1/	2	2	2	2	3	2	4

1/ Among 32 metropolitan areas.

Source: Federal Home Loan Bank Board, 1987 Savings and Home Financing Source Book, table D5

Table 642.-- MULTIPLE LISTING SERVICE LISTINGS AND SALES, FOR OAHU: 1957 TO 1987

[Data include 1-family and condominium properties for all years and cooperative, commercial/industrial, business opportunities, income, and vacant properties through 1977 and from 1982 forward]

Year	Number listed	Number sold	Percent sold	Average sales price (dollars)
1957	1,805	924	51.2	19,694
1958	2,064	936	45.3	21,365
1959	1,666	967	58.0	23,560
1960	1,868	795	42.6	27,808
1961	1,847	541	29.3	29,144
1962	1,522	515	33.8	29,332
1963	1,743	624	35.8	30,323
1964	1,934	882	45.6	32,951
1965	1,854	910	49.1	35,727
1966	2,137	813	38.0	35,652
1967	2,124	963	45.3	38,810
1968	2,375	1,133	47.7	42,546
1969	2,606	1,422	54.6	46,333
1970	3,415	1,693	49.6	44,755
1971	4,165	2,157	51.8	58,651
1972	6,022	4,555	75.6	60,810
1973	7,845	5,348	68.2	70,769
1974	10,933	4,821	44.1	70,918
1975	11,271	4,174	37.0	71,485
1976	10,627	4,311	40.6	75,483
1977	10,597	5,523	52.1	81,213
1978-1979 1/ .	9,926	5,714	57.6	82,076
1979-1980 1/ .	13,506	8,009	59.3	103,698
1980-1981 1/ .	14,090	5,553	39.4	124,897
1981 2/	13,799	3,735	27.1	144,227
1982	13,484	2,948	21.9	143,046
1983	13,556	4,868	35.9	142,914
1984 3/	13,258	4,732	35.7	141,888
1985	13,558	5,261	38.8	137,650
1986	16,047	6,467	40.3	151,985
1987	12,887	8,855	68.7	188,200

1/ Year ended February 28 or 29.
2/ March through December.
3/ January 1 through December 3.
Source: Honolulu Board of Realtors, records.

Table 643.-- MULTIPLE LISTING SERVICE LISTINGS AND SALES, BY TYPE OF PROPERTY, FOR OAHU: 1985 TO 1987

Year and type of property	Number listed	Number sold	Percent sold	Sales price (dollars)	
				Mean	Median 1/
1985					
Total	13,558	5,261	38.8	137,650	...
Residential (1-family)	4,717	2,146	45.5	188,900	...
Condominium/cooperative	8,065	2,901	36.0	98,800	...
Vacant land	402	143	35.6	114,300	...
Income/business opportunity	252	55	21.8	206,300	...
Commercial/industrial	122	16	13.1	280,400	...
1986					
Total	16,047	6,467	40.3	151,985	...
Residential (1-family)	5,481	2,595	47.3	209,400	...
Condominium/cooperative	9,509	3,600	37.8	107,700	...
Vacant land	496	162	32.7	138,880	...
Income property	402	81	20.1	205,560	...
Commercial	159	29	18.2	434,880	...
1987					
Total	12,887	8,855	68.7	188,200	130,500
Single-family residential	4,329	3,111	71.9	282,500	185,000
Condominium/cooperative	7,686	5,433	70.7	126,100	104,500
Vacant land	412	200	48.5	291,300	160,000
Multi-family	106	40	37.7	460,400	350,000
Commercial/industrial	153	36	23.5	668,500	320,000
Business opportunities	201	35	17.4	55,800	25,000

1/ Not available before 1987.

Source: Honolulu Board of Realtors, Multiple Listing Service records.

Table 644.-- MULTIPLE LISTING SERVICE UNITS SOLD, SINGLE-FAMILY RESIDENTIAL AND CONDOMINIUM, BY SELLING PRICE RANGE, FOR OAHU: 1987

Selling price range	Single-family residential	Condominium
All properties	3,111	5,433
Less than $25,000	96	6
$25,000, less than $50,000		321
$50,000, less than $75,000		1,066
$75,000, less than $100,000		1,164
$100,000, less than $125,000	185	1,048
$125,000, less than $150,000	503	754
$150,000, less than $175,000	544	362
$175,000, less than $200,000	465	173
$200,000, less than $225,000	222	98
$225,000, less than $250,000	214	83
$250,000, less than $275,000	142	70
$275,000, less than $300,000	95	58
$300,000, less than $400,000	228	89
$400,000, less than $500,000	94	51
$500,000, less than $600,000	74	27
$600,000, less than $700,000	65	26
$700,000, less than $800,000	45	15
$800,000, less than $900,000	33	4
$900,000, less than $1,000,000	19	8
$1,000,000 or more	87	10
Median value	$185,000	$104,500
Mean value	$282,500	$126,100

Source: Honolulu Board of Realtors, Multiple Listing Service records.

Table 645.-- CHARACTERISTICS OF SINGLE-FAMILY AND MULTI-FAMILY DEVELOPMENTS, FOR OAHU: 1982 TO 1987

Year	Single-family developments				Multi-family developments 1/		
	Average area (square feet)		Units sold	Average price (dollars)	Average living area (sq. ft.)	Units sold	Average price (dollars)
	House	Lot					
1982 ..	1,232	5,037	308	137,267	1,198	134	114,669
1983 ..	1,173	4,380	772	135,357	740	500	85,064
1984 ..	1,261	4,613	1,176	140,700	720	504	81,373
1985 ..	1,263	5,360	1,159	147,093	773	316	93,737
1986 ..	1,191	4,887	1,392	156,189	858	727	108,656
1987 ..	1,393	4,721	965	163,874	798	556	105,680

1/ Four stories or less.

Source: Bank of Hawaii, Construction in Hawaii, 1988 (1988), pp. 16 and 17.

Table 646.-- NUMBER OF DEEDS FILED AND RECORDED AND APPROXIMATE VALUE OF LAND CONVEYED: 1985 TO 1988

[Years ended June 30]

Subject	1985	1986	1987	1988
Number of deeds filed and recorded	20,490	28,518	58,598	66,055
Approximate value of land conveyed ($1,000) ..	3,719,659	3,893,347	7,245,393	7,958,152

1/ Data include leases, agreement of sales assignments, subleases, etc., as well as deeds.

Source: Hawaii State Department of Land and Natural Resources, Bureau of Conveyances, records.

Table 647.-- APPROXIMATE VALUE OF LAND TRANSFERS, BY COUNTIES: 1985 TO 1987

[In dollars. For calendar years. Totals include leases, agreement of sales assignments, subleases, etc., as well as deeds]

County	1985	1986	1987
State total	3,778,077,861	5,911,972,676	7,020,141,251
Honolulu	2,581,678,154	4,182,294,133	4,820,850,101
Maui	562,563,099	782,651,702	1,169,182,200
Hawaii	359,835,183	620,157,231	641,667,050
Kauai	274,001,425	326,869,610	388,441,900

Source: Hawaii State Department of Land and Natural Resources, Bureau of Conveyances, records.

Table 648.-- MORTGAGES, FORECLOSURES, AND AGREEMENTS OF SALE: 1982 TO 1987

Year	Mortgages recorded			Fore-closures 1/ ($1,000)	Mortgage assign-ments ($1,000)	Agree-ments of sale ($1,000)
	Number	Total value ($1,000)	Average value (dollars)			
1982 ...	18,773	2,478,992	132,051	22,674	3,143	639,263
1983 ...	29,060	3,528,800	121,431	24,443	(NA)	406,327
1984 ...	28,200	3,136,606	111,227	47,844	4,291	345,120
1985 ...	30,777	3,809,595	123,780	81,525	3,566	257,588
1986 ...	48,602	7,109,021	146,270	139,757	6,260	187,307
1987 ...	49,657	6,508,957	131,079	51,382	4,038	256,328

NA Not available.

1/ Commercial and residential projects.

Source: Data from Title Guaranty of Hawaii and Hawaii State Bureau of Conveyances, cited in the Bank of Hawaii, Construction in Hawaii, 1988 (1988), p. 26.

Table 649.-- CHARACTERISTICS OF HOMES INSURED UNDER FHA SECTIONS 203 AND 245: 1984

[Most recent information available. Section 203 data for both 1985 and 1986 and Section 245 data for 1985 have been tabulated but suppressed for Hawaii, because of inadequate sample size. No Section 245 tabulations for 1986 have been published]

Subject	Proposed homes		Existing homes	
	Sec. 203	Sec. 245 1/	Sec. 203	Sec. 245 1/
Volume of FHA-insured mortgages:				
Number	242	185	927	161
Amount ($1,000)	26,471	20,643	93,755	17,971
Averages:				
Property value	$136,569	$137,519	$133,712	$126,149
Market price of site	$60,913	$61,580	$65,794	$57,250
Percent of value	45.0	45.0	48.9	45.3
Improved living area 2/ (square feet)	1,090	1,057	1,241	1,151
Age of structure 3/ (years)	...	...	15.1	10.7
Price of site per square foot	$16.38	$15.63	$10.18	$10.62
Lot size (square feet)	4,082	4,246	7,290	6,246
Mortgagor's total annual income 3/	(NA)	$40,625	(NA)	$34,000
Monthly cost of heating and utilities	$98.86	$97.00	$107.13	$100.70
Sale price per square foot 2/	$94.33	(NA)	$84.86	$79.44
Construction cost per square foot	$69.77	$71.75	...	...

NA Not available.
1/ Graduated payment mortgage program.
2/ Data based on 1-story structures.
3/ Median rather than arithmetic mean.

Source: U.S. Department of Housing and Urban Development, FHA Homes. Data for States and Selected Areas on Characteristics of FHA Operations under Section 203 (annual) and FHA Homes. Data for States and Selected Areas on Characteristics of FHA Operations under Section 245, Graduated Payment Mortgage Program (annual).

Table 650.-- ELEVATORS, ESCALATORS, AND SIMILAR FACILITIES: DECEMBER 31, 1987

Facility	State total	Oahu	Hawaii		Maui	Molo-kai	Lanai	Kauai
			Hilo	Kona				
Total	4,116	3,404	118	109	344	1	2	138
Elevators	3,525	2,889	89	101	315	-	1	130
Under 9 stories:								
Hydro	773	528	30	35	104	-	1	75
Roped	1,229	932	50	66	141	-	-	40
9 to 18 stories	906	817	9	-	65	-	-	15
19 to 28 stories	367	362	-	-	5	-	-	-
29 to 38 stories	174	174	-	-	-	-	-	-
39 stories or more	76	76	-	-	-	-	-	-
Escalators and moving walks	280	271	6	-	1	-	-	2
Inclined lifts	9	2	3	1	1	-	1	1
Manlifts	12	10	-	2	-	-	-	-
Dumbwaiters	272	224	20	2	21	1	-	4
Handicapped lift	2	1	-	-	1	-	-	-
Chair lift	8	7	-	-	-	-	-	1
Private industrial elevator	8	-	-	3	5	-	-	-

Source: Hawaii State Department of Labor and Industrial Relations, Division of Occupational Safety and Health, Boiler and Elevator Inspection Bureau, records.

Table 651.-- TALLEST STRUCTURES, BY ISLANDS: JULY 1988

Island and structure	Location	Year completed	Height	
			Stories	Feet
BUILDINGS 1/				
Hawaii:				
Bayshore Towers	Hilo	1970	15	135
Maui:				
Kalana O Maui (County Bldg.)	Wailuku	1972	9	140
Royal Lahaina Hotel	Kaanapali	1970	12	132
Oahu:				
Ala Moana Hotel 2/	410 Atkinson Drive ...	1970	38	396
Ala Wai Sunset	445 Seaside Ave.	1979	44	350
Kauai:				
Westin Kauai Hotel	Lihue	1959	10	107
OTHER STRUCTURES				
Hawaii:				
Coast Guard Loran Station	Upolu Point	1958	...	625
Maui:				
KMVI Radio Tower	Wailuku	1947	...	455
Lanai:				
Storage tanks	Manele Harbor	...	...	50
Molokai:				
KAIM Radio Tower	Kalua Koi	1981	...	410
Oahu:				
VLF Antenna	Lualualei	1972	...	1,503
Kauai:				
Communication Engineers Tower	Mana	1964	...	400
Kure Atoll:				
Loran Transmitting Tower .	Kure Atoll	1962	...	625

1/ Shown separately for the tallest in feet and also (if different) for the tallest in number of stories.

2/ Measured to top of elevator machine room; otherwise, 390 feet.

Source: Compiled by DBED from Hawaii County Dept. of Research and Development, Maui County Dept. of Public Works, City and County of Honolulu Building Dept., Kauai County Dept. of Public Works, and 14th Coast Guard District.

Table 652.-- SEATING CAPACITIES OF SELECTED STADIUMS, THEATERS, CHURCHES, AND HOTELS: 1987-1988

Facility type and name	Seating capacity
Stadiums and sports arenas:	
Aloha Stadium	50,000
Aiea High School Stadium	9,600
Neal Blaisdell Center Arena 1/	8,731
Leilehua High School Stadium	6,500
Waipahu High School Stadium	6,500
Brigham Young University-Hawaii Cannon Activity Center	6,000
University of Hawaii Baseball Stadium	4,312
Theaters and auditoriums:	
Neal Blaisdell Center Arena 2/	8,780
Neal Blaisdell Center Exhibition Hall 3/	5,000
Francis Wong Stadium (Hoolulu Park Complex Multi-purpose Pavilion) 2/	4,500
Lahaina Civic Center Convention Hall 2/	4,050
Andrews Amphitheater	4,000
Hilo Civic Auditorium 2/	3,550
Waikiki Shell 4/	3,257
Pearlridge West Theater complex (12 theaters)	2,160
Neal Blaisdell Center Concert Hall	2,158
Kahala Theaters (5 theaters)	1,460
Waikiki 3 Theater	1,262
Hilton Hawaiian Village Dome	1,120
Kauai War Memorial Concert Theater	1,100
Waikiki 1 and 2 Theaters (each)	982
Kapiolani Theater	760
Cinerama Theater	646
Kennedy Theater	600
Ruger Theater	507
Richard T. Mamiya Theatre	500
Churches:	
Kawaiahao Church	1,300
Central Union Church (Sanctuary)	800
St. Theresa Co-Cathedral	800
St. Andrew's Cathedral	750
St. Anthony	750
Cathedral of Our Lady of Peace	700
St. Augustine	700
Star of the Sea	700

Continued on next page.

Table 652.-- SEATING CAPACITIES OF SELECTED STADIUMS, THEATERS, CHURCHES, AND HOTELS: 1987-1988 -- Con.

Facility type and name	Seating capacity
Hotels (capacity in reception or theater configuration, whichever is greater):	
Hilton Hawaiian Village Coral Ballroom	5,000
Sheraton Waikiki Hawaii Ballroom	3,700
Hilton Hawaiian Village Tapa Room	3,400
Hilton Hawaiian Village Palace Lounge	3,200
Royal Hawaiian Monarch Room and Lanai	3,000
Westin Kauai Palace Ballroom	2,143
Hilton Hawaiian Village Coral Lounge	2,000
Westin Ilikai Pacific Ballroom	2,000
Maui Marriott Kaanapali Ballroom	1,700
Ala Moana Hibiscus Ballroom	1,500
Hilo Hawaiian Banquet Room	1,500
Hyatt Regency Maui Grand Ballroom	1,500
Pacific Beach Grand Ballroom	1,500
Westin Ilikai Polynesia	1,300
Kona Lagoon Polynesian Longhouse	1,300
Hilton Hawaiian Village Iolani Suite	1,200
Hyatt Regency Waikiki Regency Ballroom	1,200
Kona Surf Milo and Koa Rooms	1,200
Outrigger Prince Kuhio Grand Ballroom	1,200
Westin Maui Valley Isle Ballroom	1,102
Ala Moana Americana Garden Lanai	1,000
Hawaiian Regent Hawaiian Ballroom	1,000
Hilton Hawaiian Village South Pacific Ballroom	1,000
Kauai Hilton Jasmine Ballroom	1,000
Kona Surf Nalu Terrace	1,000
Turtle Bay Hilton & Country Club Kahuku meeting rooms	1,000
Waiohai Plantation Ballroom	1,000

1/ Capacity in boxing configuration.
2/ Capacity in concert configuration.
3/ Capacity in reception configuration.
4/ Includes 1,299 temporary seating.

Source: Compiled by the Hawaii State Department of Business and Economic Development from the Honolulu Fire Department, Fire Prevention Bureau; Honolulu Building Department; officials of the facilities listed; and Hawaii Business, June 1988, pp. 42-44.

Section 22

MANUFACTURES

This section presents statistics on the manufacturing segment of the economy, including sugar processing and pineapple canning. Additional information on manufacturing workers appears in Sections 12 and 15.

The number of manufacturing establishments in Hawaii increased from 697 in 1967 to 966 in 1982. The value added by manufacture rose from $326 million in 1967 to $786 million in 1977 and $1,174 million in 1986. More than three-fourths of all manufacturing activity in the State in 1982 was on Oahu. Food processing--mostly sugar and pineapple--accounted for 49 percent of the value added by manufacture in 1986. In 1987, the general excise and use tax base was $386 million for sugar processing, $2 million for pineapple canning (mostly exempted), and $595 million for all other manufacturing. There were two pineapple canneries and 11 sugar mills in Hawaii in 1987. The production of canned pineapple fruit and juices in 1981 (the most recent year available) was 18 million actual cases, well below the levels of earlier years. Sugar production in 1987 amounted to 979,000 short tons. The value of sugar production (including commercial molasses) in 1987 was $336 million, compared with the record of $677 million set in 1974. Important manufactures other than food processing include apparel, printing and publishing, and stone, clay, and glass products.

Sources for data on this subject include the United States Census of Manufactures, most recently published for 1982, the Annual Survey of Manufactures, publications of the Hawaii State Department of Agriculture and Department of Taxation, and the Hawaiian Sugar Planters' Association's annual report, *HSPA Sugar Manual*. *Historical Statistics of Hawaii*, Section 16, reviews the figures for earlier years. Statistics for the nation as a whole appear in Section 27 of the *Statistical Abstract of the United States: 1988*.

Table 653.-- STATISTICAL SUMMARY OF MANUFACTURES: 1963 TO 1982

Subject	1963	1967	1972	1977	1982
All establishments:					
Total	672	697	773	949	966
With 20 employees or more	203	215	238	231	237
All employees:					
Number (1,000)	25.1	25.4	24.8	25.0	23.6
Payroll (million dollars)	109.0	139.6	191.1	276.8	360.3
Production workers:					
Number (1,000)	18.7	19.0	17.7	17.4	16.0
Hours (millions)	33.2	35.9	33.1	31.3	29.9
Wages (million dollars) .	67.5	86.9	113.7	160.5	217.5
Value added by manufacture 1/ (million dollars)	261.1	326.2	410.0	785.5	1,119.6
Cost of materials 2/ (million dollars)	(NA)	399.6	548.3	1,176.1	2,357.5
Value of shipments 2/ (million dollars)	(NA)	723.4	955.6	1,974.0	3,443.0
New capital expenditures (million dollars)	15.4	26.0	46.7	44.4	89.4

NA Not available.

1/ Data for 1982 not directly comparable to data for earlier years; see source for discussion.

2/ Aggregate cost of materials and value of shipments include extensive duplication since products of some industries are used as materials by others.

Source: U.S. Bureau of the Census, 1986 Annual Survey of Manufactures, Geographic Area Statistics, M86(AS)-3 (July 1988), table 1, and 1977 Census of Manufactures, Hawaii, MC77-A-12 (October 1980), table 2a.

Table 654.-- STATISTICAL SUMMARY OF MANUFACTURES: 1983 TO 1986

Subject	1983	1984	1985	1986
All employees:				
Number (1,000)	22.6	22.5	23.0	23.1
Payroll (million dollars)	375.9	383.3	400.7	424.0
Production workers:				
Number (1,000)	14.9	15.6	15.8	15.7
Hours (millions)	29.0	29.3	28.0	29.0
Wages (million dollars) .	223.8	223.3	228.5	239.3
Value added by manufacture (million dollars)	1,045.9	1,046.4	1,195.3	1,173.9
Cost of materials 1/ (million dollars)	2,382.2	2,330.4	2,280.2	1,898.9
Value of shipments 1/ (million dollars)	3,414.5	3,409.6	3,477.3	3,086.4
New capital expenditures (million dollars)	60.6	69.4	76.1	47.3

1/ Aggregate cost of materials and value of shipments include extensive duplication since products of some industries are used as materials by others.

Source: U.S. Bureau of the Census, 1986 Annual Survey of Manufactures, Geographic Area Statistics, M86(AS)-3 (July 1988), table 1.

Table 655.-- STATISTICAL SUMMARY OF MANUFACTURES, BY COUNTIES: 1982

Subject	State total	City and County of Honolulu	Hawaii County	Kauai County	Maui County
All establishments 1/ (number) ...	967	780	99	25	63
With 20 employees or more	237	200	18	7	12
All employees:					
Number (1,000)	23.6	17.9	2.4	0.7	2.6
Payroll (million dollars)	360.4	279.4	37.9	12.1	30.9
Production workers:					
Number (1,000)	16.0	11.9	1.9	0.5	1.7
Hours (millions)	29.9	21.6	3.9	1.0	3.4
Wages (million dollars)	217.5	158.3	29.0	8.3	21.8
Value added by manufacture (million dollars)	1,119.6	901.5	100.6	26.6	90.3
Cost of materials 2/ (million dollars)	2,357.5	2,078.5	130.1	58.3	90.7
Value of shipments 2/ (million dollars)	3,443.0	2,947.3	229.6	84.9	181.1
New capital expenditures (million dollars)	89.4	58.4	7.5	5.9	17.6

1/ Includes establishments with payroll at any time during the year.

2/ Aggregate cost of materials and value of shipments include extensive duplication since products of some industries are used as materials by others.

Source: U.S. Bureau of the Census, 1982 Census of Manufactures, Hawaii, MC82-A-12 (April 1985), table 4.

Table 656.-- MANUFACTURES, BY SELECTED INDUSTRY GROUP AND INDUSTRY: 1982

SIC code	Industry group and industry	Number of establishments	Number of employees (1,000)	Payroll (million dollars)	Value added by manufacture (million dollars)	Value of shipments (million dollars)
	All industries	967	23.6	360.4	1,119.6	3,443.0
20	Food and kindred products ...	221	11.1	161.2	398.6	1,079.5
202	Dairy products	10	.5	10.4	20.3	68.8
203	Preserved fruits and vegetables	34	3.3	36.1	96.7	234.0
2033	Canned fruits and vegetables	9	3.1	33.6	89.3	214.5
205	Bakery products	33	1.2	18.9	41.6	70.7
206	Sugar and confectionery products	29	3.6	61.6	159.7	428.1
2061	Raw cane sugar	13	2.9	52.9	136.1	350.3
208	Beverages	12	.5	8.6	26.9	72.3
23	Apparel and other textile products	145	3.4	31.1	56.5	106.6
232	Men's and boy's furnishings	22	.8	7.5	13.1	22.9
233	Women's and misses' outerwear	78	1.7	15.7	26.3	44.6
2335	Women's and misses' dresses	62	1.4	12.8	21.1	37.3
27	Printing and publishing	177	2.5	(D)	(D)	(D)
275	Commercial printing	93	.9	14.3	27.0	44.5
28	Chemicals and allied products	21	.3	6.3	24.8	64.4
32	Stone, clay, and glass products	53	.9	19.2	38.9	80.0
327	Concrete, gypsum, and plaster products	29	.7	16.0	30.4	64.1
34	Fabricated metal products ...	42	.7	11.8	22.9	76.4

D Withheld to avoid disclosing data for individual companies; data are included in higher level totals.

Source: U.S. Bureau of the Census, 1982 Census of Manufactures, Hawaii, MC82-A-12 (April 1985), table 5.

Table 657.-- MANUFACTURES, BY SELECTED INDUSTRY GROUP: 1986

[Includes operating manufacturing establishments and auxiliaries. Includes major groups with 150 employees or more]

SIC code	Major group	All employees		Production workers		
		Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)
	All groups	23.1	424.0	15.7	29.0	239.3
20	Food and kindred products	9.5	179.9	6.6	12.7	104.1
23	Apparel and other textile products	4.2	43.1	3.3	6.6	33.1
24	Lumber and wood products	.4	5.5	.3	.5	4.0
25	Furniture and fixtures	.2	3.9	.2	.4	2.4
26	Paper and allied products	.3	6.5	.2	.4	4.1
27	Printing and publishing	(D)	(D)	(D)	(D)	(D)
28	Chemicals and allied products	.4	8.1	.2	.3	3.6
29	Petroleum and coal products	(D)	(D)	(D)	(D)	(D)
30	Rubber and miscellaneous plastics products	(S)	(S)	(S)	(S)	(S)
32	Stone, clay, and glass products	1.0	23.0	.7	1.3	16.4
34	Fabricated metal products	.6	11.8	.5	.8	8.8
35	Machinery, except electrical	.3	4.9	.2	.4	3.1
37	Transportation equipment	.4	7.8	.3	.5	5.7
39	Miscellaneous manufacturing industries	.6	6.4	.4	.6	3.6
--	Auxiliaries	.6	21.3	-	-	-

Continued on next page.

Table 657.-- MANUFACTURES, BY SELECTED INDUSTRY GROUP: 1986 - Con.

[Includes operating manufacturing establishments and auxiliaries. Includes major groups with '150 employees or more]

SIC code	Major group	Value added by manufacture (million dollars)	Cost of materials 1/ (million dollars)	Value of shipments 1/ (million dollars)	New capital expenditures (million dollars)	End-of-year inventories (million dollars)
	All groups	1,173.9	1,898.9	3,086.4	47.3	338.5
20	Food and kindred products	573.7	752.1	1,322.1	27.8	136.9
23	Apparel and other textile products	71.3	92.7	164.6	2.5	51.9
24	Lumber and wood products	10.9	13.5	24.8	.1	4.6
25	Furniture and fixtures	5.1	3.1	9.0	(D)	1.9
26	Paper and allied products	19.4	23.3	42.7	1.2	5.0
27	Printing and publishing	(D)	(D)	(D)	(D)	(D)
28	Chemicals and allied products	3.5	41.3	46.3	(D)	12.8
29	Petroleum and coal products	(D)	(D)	(D)	(D)	(D)
30	Rubber and miscellaneous plastics products	(S)	(S)	(S)	(D)	(S)
32	Stone, clay, and glass products	46.4	69.6	116.3	2.7	13.9
34	Fabricated metal products	19.7	62.5	84.9	(D)	14.8
35	Machinery, except electrical	8.6	4.7	13.9	.2	2.5
37	Transportation equipment	5.2	12.4	17.5	(D)	2.1
39	Miscellaneous manufacturing industries	16.0	19.6	34.1	.1	10.4
--	Auxiliaries	-	-	-	-	-

D Withheld to avoid disclosing data for individual companies.
S Withheld because estimate did not meet publication standards.
1/ Aggregate of cost of materials and value of shipments includes extensive duplication since products of some industries are used as materials by others.

Source: U.S. Bureau of the Census, 1986 Annual Survey of Manufactures, Geographic Area Statistics, M86(AS)-3 (July 1988), table 2.

Table 658.-- PLANT CAPACITY UTILIZATION RATES: FOURTH QUARTERS, 1981 TO 1986

[Data based on limited samples and subject to high sampling variability. Comparability of 1984 and later rates with earlier figures is further affected by the use of a new survey sample in that year. Considerable caution is thus urged in making any year-to-year comparisons, and particularly between 1983 and 1984]

Type of rate	Fourth quarter estimates					
	1981	1982	1983	1984	1985	1986
Preferred rate 1/	80	80	83	84	87	87
Practical rate 2/	73	72	73	81	83	78

1/ The preferred level of operations is defined as a level, normally between actual operations and practical capacity, which the manufacturer would prefer not to exceed due to costs or other considerations. In this table, the preferred utilization rate represents the ratio of actual to preferred level of operations.

2/ Practical capacity is broadly defined as the greatest output the plant could achieve within the framework of a realisic work pattern. The practical capacity utilization rate is the ratio of actual operations to the practical capacity level.

Source: U.S. Bureau of the Census, "Survey of Plant Capacity, 1982," Current Industrial Reports, MQ-C19(82)-1, November 1983, p. 19, and unpublished estimates for 1983-1986.

Table 659.-- MANUFACTURING SALES RECEIPTS: 1983 TO 1987

[Millions of dollars]

Category	1983	1984	1985	1986	1987
Total manufacturing ...	2,284.7	2,281.0	2,206.9	1,946.6	2,130.5
Sugar processing	410.2	393.0	340.8	359.7	339.7
Pineapple canning	219.0	249.5	222.5	238.4	251.8
Petroleum	1,143.7	1,118.9	1,115.9	780.0	943.9
Diversified manufacturing ..	511.8	519.6	527.7	568.5	595.1

Source: Bank of Hawaii, Hawaii 1988 (1988), p. 35.

Table 660.-- GENERAL EXCISE TAX BASE FOR SUGAR PROCESSING, PINEAPPLE CANNING, AND MANUFACTURING: 1977 TO 1987

[In thousands of dollars. Data are on a cash basis accounting]

Year reported 1/	Total 2/	Sugar processing	Pineapple canning 2/	Manufacturing 3/
1977 4/ ...	862,412	284,000	111,942	466,470
1978 4/ ...	917,163	291,000	131,665	494,498
1979	1,035,159	305,738	164,200	565,221
1980	1,349,149	527,379	195,766	626,004
1981	1,218,516	415,442	172,342	630,732
1982	1,033,845	317,880	185,367	530,598
1983	1,130,369	435,579	182,967	511,823
1984	1,132,078	414,211	198,266	519,601
1985	1,000,578	357,151	115,754	527,673
1986	937,840	336,334	32,974	568,532
1987	983,175	385,842	2,193	595,140

1/ Calendar year in which reported, including "prior years" reports. Income received in December is reported the following January and hence these annual totals generally refer to an "income year" ended November 30.

2/ Decline after 1984 reflects in part the exemption of exported pineapple produced by two companies from the general excise tax, effective August 1, 1985 and April 30, 1986, when they were granted foreign trade subzone status.

3/ Excludes sugar processing, pineapple canning, and petroleum refining.

4/ Partly estimated.

Source: Hawaii State Department of Taxation, "General Excise and Use Tax Base" (annual tabular release).

Table 661.-- INDUSTRIAL PARKS AND AREAS, BY ISLANDS: 1985

Subject	State total	Hawaii	Maui	Oahu	Kauai	Other islands
Number:						
Developed	33	6	4	21	2	-
Proposed	12	2	2	7	1	-
Acres:						
Developed	3,066	618	195	2,207	46	-
Proposed	1,873	1,035	330	492	16	-

Source: Hawaii State Department of Planning and Economic Development, Industrial Parks and Areas in Hawaii 1985 (1985).

Table 662.-- HAWAIIAN PINEAPPLE PRODUCTION: 1979 TO 1981

[In thousands. Hawaiian pack only; excludes overseas production by Hawaiian companies. Compilation of these statistics was suspended after 1981]

Year	Canned fruit		Canned juice		Frozen concentrate	
	Actual cases	Standard cases 1/	Actual cases	Standard cases 2/	Equivalent 6/10 cases	Standard cases 2/
1979	10,930	7,470	7,699	6,010	308	280
1980	9,918	6,940	8,114	6,410	237	215
1981	9,759	6,830	7,997	6,320	219	200

1/ 24 No. 2 1/2 can, 45-lb. cases.

2/ 24 No. 2 1/2 can, 42 1/2-lb. cases.

Source: The Pineapple Growers Association of Hawaii, records; Hawaii Agricultural Reporting Service, Statistics of Hawaiian Agriculture, 1982, p.30.

Table 663.-- PINEAPPLE COMPANIES AND CANNERIES AND SUGAR COMPANIES AND MILLS: 1940 TO 1987

Year	Pineapple (end of canning season)		Sugar (December 31)	
	Companies	Canneries	Companies 1/	Mills
1940	8	8	38	34
1945	7	7	36	32
1950	9	8	28	26
1955	10	8	28	26
1960	8	9	27	27
1965	6	6	25	27
1970	4	4	23	26
1975	3	3	16	17
1980	3	3	15	14
1985	3	2	14	12
1986	3	2	14	12
1987	2	2	13	11
ISLANDS: 1987				
Hawaii	-	-	3	3
Maui	1	1	3	2
Oahu	1	1	2	2
Kauai	-	-	5	4

1/ Excludes cooperatives.

Source: Pineapple Growers Association of Hawaii, records; Hawaiian Sugar Planters' Association, records.

Table 664.-- SUGAR AND MOLASSES PRODUCTION: 1967 TO 1987

Year	Cane land (acres)		Cane used for sugar (short tons)	Sugar produced (short tons)		Molasses produced (short tons)
	Total area	Harvested area 1/		96° raw value	Equivalent refined	
1967 ...	239,813	111,837	11,045,949	1,191,042	1,113,148	359,170
1968 ...	242,476	113,525	11,279,920	1,232,182	1,151,597	368,050
1969 ...	242,216	113,232	10,839,272	1,182,414	1,105,060	340,330
1970 ...	238,997	113,816	10,457,377	1,162,071	1,086,000	322,480
1971 ...	232,278	115,810	10,685,019	1,229,976	1,149,510	330,227
1972 ...	229,611	108,456	9,929,068	1,118,883	1,045,708	307,543
1973 ...	226,580	108,189	9,645,452	1,128,529	1,054,723	301,500
1974 ...	224,227	95,826	9,082,684	1,040,742	972,677	293,380
1975 ...	221,426	105,125	9,485,299	1,107,199	1,034,788	301,335
1976 ...	221,551	99,926	9,172,649	1,050,457	981,757	275,352
1977 ...	220,729	96,770	8,994,388	1,033,739	966,132	284,349
1978 ...	220,697	99,355	9,263,190	1,028,933	961,641	310,238
1979 ...	218,773	100,610	9,632,135	1,059,737	990,430	325,843
1980 ...	217,718	97,358	9,214,136	1,023,232	956,313	315,088
1981 ...	216,099	97,573	8,831,477	1,047,541	979,032	311,719
1982 ...	204,749	89,261	8,807,998	982,913	918,630	287,190
1983 ...	194,258	92,808	8,926,358	1,044,204	975,913	303,254
1984 ...	188,396	89,541	8,453,721	1,061,814	992,371	314,202
1985 ...	187,858	83,029	7,916,459	1,012,249	946,048	271,645
1986 ...	184,181	83,583	8,379,463	1,042,452	974,276	290,422
1987 ...	180,966	79,498	8,012,899	979,209	915,169	283,250

1/ The average growth of a crop is 22 to 26 months. Only a portion of the total acreage in cane is harvested each year.

Source: Hawaiian Sugar Planters' Association, HSPA Sugar Manual (annual).

Table 665.-- AVERAGE RAW SUGAR PRICE AND SUGAR INDUSTRY EMPLOYMENT AND EARNINGS: 1967 TO 1987

Year	Average raw sugar price 1/ (cents per lb.)	Hourly-rated employees		Industry-wide strikes (weeks)	Average daily earnings 2/ (dollars)	
		Average number 3/	Total man-days		Cash wages	Employee benefits
1967 ...	7.28	9,756	2,346,197	-	21.35	7.50
1968 ...	7.52	9,481	2,282,654	-	21.62	8.40
1969 ...	7.75	9,213	2,066,244	5	23.26	9.76
1970 ...	8.08	8,908	2,139,183	-	24.24	10.00
1971 ...	8.52	8,610	2,077,011	-	26.08	10.27
1972 ...	9.10	8,127	1,934,563	-	29.09	11.23
1973 ...	10.30	7,900	1,897,369	-	30.86	12.48
1974 ...	29.43	7,700	1,744,346	6	34.41	15.81
1975 ...	22.49	7,800	1,937,973	-	37.34	15.66
1976 ...	13.31	7,500	1,854,272	-	43.12	17.28
1977 ...	11.11	7,200	1,660,298	3	43.92	19.97
1978 ...	13.74	7,200	1,771,530	-	47.06	21.28
1979 ...	15.20	7,065	1,762,838	-	50.49	22.21
1980 ...	30.18	7,076	1,793,237	-	56.72	24.68
1981 ...	19.74	7,282	1,806,020	-	61.51	27.71
1982 ...	19.94	6,816	1,519,732	-	65.11	30.83
1983 ...	22.04	6,543	1,565,928	-	66.80	32.00
1984 ...	21.74	6,319	1,467,127	-	68.88	34.71
1985 ...	20.39	5,751	1,323,525	-	68.72	35.99
1986 ...	20.90	5,413	1,290,067	-	69.28	34.24
1987 ...	21.83	5,222	1,261,209	-	71.36	41.83

1/ Average New York raw sugar price computed over all the days of the year (Hawaiian basis). The New York spot price was suspended from November 2, 1977 to August 20, 1979; figures for that period are based on Clearing Association settlement prices. New York spot price "nearby futures" used beginning June 1985.

2/ For non-supervisory employees.

3/ Adults only.

Source: Hawaiian Sugar Planters' Association, HSPA Sugar Manual (annual), as revised and updated.

Table 666.-- VALUE OF SALES AND GOVERNMENT PAYMENTS FOR PINEAPPLE AND SUGAR PRODUCTION: 1970 TO 1987

[In millions of dollars. Calendar year data unless otherwise specified]

	Pineapple		Sugar		
			Value of production		Government sugar support payments
Year	Canned fruit and juices 1/	Fresh market sales 2/	Raw sugar 96°	Commercial molasses	
1970 ..	135.0	3.60	180.7	7.1	10.3
1971 ..	137.7	3.70	196.3	6.7	10.7
1972 ..	140.5	4.90	176.6	8.1	9.7
1973 ..	135.0	7.40	203.8	18.4	9.5
1974 ..	118.2	8.85	659.2	17.4	8.6
1975 ..	126.6	10.08	354.6	11.5	-
1976 ..	130.0	14.49	245.5	11.5	-
1977 ..	140.0	21.58	219.1	7.7	48.7
1978 ..	133.4	29.45	269.5	15.7	8.1
1979 ..	176.3	30.08	322.2	23.5	-
1980 ..	192.2	34.34	566.4	27.7	-
1981 ..	172.0	45.63	314.2	13.7	-
1982 ..	156.1	49.92	343.9	7.6	-
1983 ..	171.6	47.40	396.5	13.7	-
1984 ..	202.0	47.60	382.9	10.1	-
1985 ..	171.7	50.84	331.9	8.9	-
1986 ..	184.9	53.46	348.4	13.5	-
1987 ..	202.9	48.51	325.0	10.9	-

1/ Value of canned fruit and juices and by products shipped out-of-State and sold within State. Prior to 1979, data are for pack years beginning June 1.

2/ Value FAS shipping point for outshipments, delivered wholesalers local sales.

Source: Hawaii Agricultural Statistics Service, Statistics of Hawaiian Agriculture (annual) and records.

Section 23

DOMESTIC TRADE AND SERVICES

This section presents statistics relating to retail and wholesale trade; hotels; and selected personal, business, automotive, repair, and amusement services. Related data are included in Sections 7, 12, 14 and 15.

These activities have undergone rapid growth in recent decades, largely because of surging tourism and higher price levels. Retail sales increased from $1.9 billion in 1972 to $5.2 billion in 1982. Wholesale sales rose from $1.6 billion in 1972 to $4.1 billion in 1982. Hotels, amusements, and other services reported receipts exceeding $2.6 billion in 1982, compared with $665 million in 1972. General excise and use tax base data for more recent years indicate continued increases; between 1982 and 1987, the retailing tax base rose 47 percent, the wholesaling base by 62 percent, and the base for services by 63 percent. Major retail concentrations include Waikiki, Ala Moana Center, Pearlridge Center, and downtown Honolulu. In addition to civilian retail outlets, there are many commissaries, exchanges, clubs, package stores, gasoline stations and food services maintained by the armed forces; these facilities had sales of $465 million in 1987.

Growth has been especially rapid for hotels and related facilities. The number of units in the State rose from 6,800 in 1959 to 69,000 in 1988. There were 481 hotels, motels and apartment-hotels in Hawaii on the latter date, including 298 on the Neighbor Islands. Almost 31 percent of all transient units were in condominium structures. Occupancy rates averaged 87 percent in Waikiki and 71 percent on the Neighbor Islands during 1987. The average daily room rate was $80 in 1987. Total hotel rentals in 1987 exceeded $1.45 billion, or $34,000 per unit.

Fully 109 feature motion pictures and television specials and series were filmed in Hawaii in 1987, accounting for local expenditures of $51 million. Both totals were all-time highs.

The major source of these data are the United State Censuses of Retail Trade, Wholesale Trade, and Service Industries, most recently published for 1982. Statistics on the retailing, wholesaling, and services tax bases are available from the Hawaii State Department of Taxation. Data on hotel room counts, occupancy and other characteristics are published by the Hawaii Visitors Bureau and the firm of Pannell Kerr Forster. The Film Industry Branch of the Department of Business and Economic Development compiles data on motion picture and television production. A summary of figures on trade and services in earlier years appears in Historical Statistics of Hawaii, Section 20. The Statistical Abstract of the United States: 1988, Section 28, presents similar data for other states and the nation as a whole.

Table 667.-- RETAIL TRADE, WHOLESALE TRADE, AND SELECTED SERVICES: 1958 TO 1982

[Excludes establishments on military bases]

Year and definition	Retail trade		Wholesale trade		Selected services	
	Establishments	Sales ($1,000)	Establishments	Sales ($1,000)	Establishments	Receipts ($1,000)
ALL ESTABLISHMENTS						
1958 (1963 def.)	4,760	516,177	793	618,155	3,070	101,142
1963	4,578	751,411	974	735,205	3,431	163,094
1967	5,212	1,083,458	1,030	1,013,813	4,057	310,290
1972 (1967 def.)	6,416	1,891,516	1,311	1,511,398	5,570	583,289
1972 (1972 def.)	6,392	1,864,985	1,336	1,538,429	6,348	683,201
1972 (1977 def.)	5,880	1,859,929	1,337	1,561,654	6,348	664,857
1977 (1977 def.)	7,388	3,294,118	1,569	2,571,489	8,023	1,276,163
1977 (1982 def.)	7,477	3,296,714	1,569	2,571,489	(NC)	(NC)
1982	8,917	5,193,406	1,737	4,084,369	(NC)	(NC)
ESTABLISHMENTS WITH PAYROLL						
1958 (1963 def.)	3,130	485,531	793	618,155	1,436	92,430
1963	3,354	725,977	974	735,205	1,837	153,272
1967	3,537	1,041,540	1,030	1,013,813	1,947	278,556
1972 (1967 def.)	4,515	1,846,414	1,311	1,511,398	2,559	554,329
1972 (1972 def.)	4,491	1,819,883	1,336	1,538,429	3,031	648,164
1972 (1977 def.)	4,491	1,819,883	1,337	1,561,654	(NA)	629,820
1977 (1977 def.)	5,273	3,222,715	1,569	2,571,489	3,306	1,216,214
1977 (1982 def.)	(NA)	3,225,311	1,569	2,571,489	(NC)	(NC)
1982	6,139	5,101,671	1,737	4,084,369	(NC)	(NC)

NA Not available.

NC Not comparable.

Source: U.S. Bureau of the Census, 1963 Census of Business, BC63-RA13, BC63-WA13, and BC63-SA13; 1967 Census of Business, BC67-RA13, BC67-WA13, and BC67-SA13; 1972 Census of Retail Trade, RC72-A-12; 1972 Census of Wholesale Trade, WC72-A-12; 1972 Census of Selected Service Industries, SC72-A-12; 1977 Census of Retail Trade, RC77-A-12; 1977 Census of Wholesale Trade, WC77-A-12 (Revised); 1987 Census of Service Industries, SC77-A-12; 1982 Census of Retail Trade, RC82-A-12; 1982 Census of Wholesale Trade, WC82-A-12; 1982 Census of Service Industries, SC82-A-12.

Table 668.-- GENERAL EXCISE TAX BASE FOR TRADE AND SERVICE ACTIVITIES: 1977 TO 1987

[In thousands of dollars. Data are on a cash basis accounting]

Year reported 1/	Retailing	Services 2/	Amusement, etc. 3/	Intermediary services	Wholesaling
1977 4/ ...	4,222,169	1,095,066	92,827	46,687	1,989,981
1978 4/ ...	4,774,076	1,222,996	104,085	49,793	2,158,707
1979	5,519,889	1,412,195	109,143	44,302	2,800,951
1980	6,109,628	1,743,003	121,562	53,244	2,986,877
1981	6,700,750	1,809,913	129,501	57,191	3,528,763
1982	6,874,963	1,905,068	130,280	69,775	3,207,768
1983	7,438,193	2,134,524	144,095	102,227	3,694,220
1984	8,111,893	2,368,415	153,723	128,875	4,025,324
1985	8,499,254	2,481,669	154,830	116,300	4,095,220
1986	9,239,373	2,784,169	159,881	127,992	4,443,166
1987	10,097,233	3,096,002	157,824	148,557	5,188,215

1/ Calendar year in which reported, including "prior years" reports. Income received in December is reported the following January, hence these annual totals generally refer to an "income year" ended November 30.

2/ Includes both business and professional services but excludes hotels, theater, amusement, broadcasting, and intermediary services.

3/ Theater, amusement, broadcasting, etc.

4/ Partly estimated.

Source: Hawaii State Department of Taxation, "General Excise and Use Tax Base" (annual tabular release).

Table 669.-- CHARACTERISTICS OF RETAIL ESTABLISHMENTS, FOR THE STATE, 1977 AND 1982, AND OAHU AND THE NEIGHBOR ISLANDS, 1982

[Excludes establishments operated by the armed forces]

Subject	1977 1/	1982		
		State total	Oahu	Neighbor islands
All establishments:				
Number	7,477	8,917	6,347	2,570
Sales ($1,000)	3,296,714	5,193,406	3,962,598	1,230,808
Unincorporated businesses (number):				
Individual proprietorships	3,120	3,656	2,591	1,065
Partnerships	516	556	392	164
Establishments with payroll:				
Number	5,273	6,139	4,318	1,821
Sales ($1,000)	3,225,311	5,101,671	3,898,767	1,202,904
Annual payroll ($1,000)	458,782	696,438	539,170	157,268
First quarter payroll ($1,000)	111,143	164,950	127,260	37,690
Paid employees for pay period including March 12 (number)	72,098	81,979	63,620	18,359

1/ The 1977 data on total establishments, total sales, sales of establishments with payroll, and annual payroll have been revised for comparability with the 1982 data; the 1977 data on unincorporated businesses, number of establishments with payroll, first quarter payroll, and paid employees are unrevised. Unrevised figures for those data subsequently revised are as follows: total establishments, 7,388; total sales, $3,294,118,000; sales of establishments with payroll, $3,222,715,000; annual payroll, $460,322,000.

Source: U.S. Bureau of the Census, 1977 Census of Retail Trade, Hawaii, RC77-A-12 (June 1979), table 1; 1982 Census of Retail Trade, Hawaii, RC82-A-12 (September 1984), tables 1, 2, 4, and 5.

Table 670.-- RETAIL TRADE FOR COUNTIES AND URBAN PLACES: 1982

[Excludes establishments operated by the armed forces]

Geographic area	All establishments		Establishments with payroll	
	Number	Sales ($1,000)	Number	Sales ($1,000)
State total	8,917	5,193,406	6,139	5,101,671
Hawaii County	1,039	492,154	738	481,664
Hilo	445	285,856	345	283,381
Kailua	216	103,003	162	100,759
Balance of county	378	103,295	231	97,524
Honolulu County	6,347	3,962,598	4,318	3,898,767
Ahuimanu	16	(D)	6	(D)
Aiea	274	254,358	189	252,013
Ewa	6	(D)	4	(D)
Ewa Beach	45	10,100	17	9,604
Hauula	13	5,304	6	5,269
Heeia	10	341	-	-
Hickam Housing	-	-	-	-
Honolulu	4,595	2,859,473	3,280	2,813,522
Iroquois Point	-	-	-	-
Kahaluu	5	(D)	1	(D)
Kailua	244	152,715	154	150,387
Kaneohe	220	182,230	138	180,237
Laie	13	1,738	2	(D)
Maile	7	2,783	6	(D)
Makaha	10	3,702	4	3,633
Makakilo City	15	2,599	5	2,424
Maunawili	19	1,643	4	1,569
Mililani Town	59	23,226	20	22,233
Mokapu	1	(D)	1	(D)
Nanakuli	16	10,567	11	10,469
Pearl City	186	122,823	90	120,958
Schofield Barracks ...	3	1,430	3	1,430
Wahiawa	140	55,200	89	54,208
Waialua	14	4,717	8	(D)
Waianae	56	41,490	38	41,148
Waimanalo	33	14,349	23	14,062
Waimanalo Beach	1	(D)	-	-
Waipahu	196	133,233	123	130,512
Waipio Acres	4	331	2	(D)
Balance of county	146	57,318	94	55,667

Continued on next page.

Table 670.-- RETAIL TRADE FOR COUNTIES AND URBAN PLACES: 1982 -- Con.

Geographic area	All establishments		Establishments with payroll	
	Number	Sales ($1,000)	Number	Sales ($1,000)
Kauai County	539	219,418	365	211,628
Hanamaulu	6	1,011	4	(D)
Kalaheo	14	2,724	5	2,334
Kapaa	150	47,147	102	45,487
Kekaha	10	2,146	4	1,998
Lihue	168	100,040	131	97,769
Balance of county	191	66,350	119	(D)
Maui County	992	519,236	718	509,612
Island of Lanai	11	3,728	9	(D)
Island of Molokai	45	14,147	30	13,852
Kahului	183	161,665	138	159,831
Kihei	85	42,021	56	41,442
Lahaina	309	138,309	251	135,396
Makawao	22	4,840	5	4,213
Pukalani	24	8,715	16	(D)
Wailuku	147	61,074	96	60,051
Balance of county	166	84,737	117	82,869

(D) Withheld to avoid disclosing data for individual companies.

Source: U.S. Bureau of the Census, 1982 Census of Retail Trade, Hawaii, RC82-A-12 (September 1984), table 8.

Table 671.-- RETAIL TRADE, BY KIND OF BUSINESS: 1982 AND 1977

[Limited to establishments with payroll. Excludes establishments operated by the armed forces]

SIC code	Kind of business	Number of establishments, 1982	Sales		
			1982 ($1,000)	1977 ($1,000)	Percent change
	Retail trade	6,139	5,101,671	3,225,311	58.2
52	Building materials, hardware, garden supply	126	149,622	75,697	97.7
53	General merchandise	153	657,247	581,366	13.1
54	Food stores	797	1,081,175	651,163	66.0
55 ex. 554	Automotive dealers	227	540,566	458,497	17.9
554	Gasoline service stations ..	366	400,141	173,075	131.2
56	Apparel and accessory stores	793	379,746	208,514	82.1
57	Furniture, home furnishings, and equipment stores	335	160,828	98,135	63.9
58	Eating and drinking places .	1,741	872,558	478,966	82.2
591	Drug and proprietary stores	121	337,590	178,392	89.2
59 ex. 591	Miscellaneous retail stores	1,480	522,198	321,506	62.4

Source: U.S. Bureau of the Census, 1982 Census of Retail Trade, Hawaii, RC82-A-12 (September 1984), tables 1 and 2.

Table 672.-- MERCHANDISE LINE SALES OF RETAIL ESTABLISHMENTS WITH PAYROLL, FOR THE STATE AND OAHU: 1982

Merchandise line	Number of establishments		Sales ($1,000)	
	State total	Oahu	State total	Oahu
Total retail trade 1/	6,139	4,318	5,101,671	3,898,767
Groceries and other foods	1,127	760	908,817	638,919
Meals and snacks	1,852	1,394	762,547	615,707
Alcoholic drinks	892	650	139,845	108,396
Packaged alcoholic beverages	616	407	150,107	112,975
Cigars, cigarettes, and tobacco	717	482	63,754	49,745
Drugs, health aids, and beauty aids	674	433	265,268	208,242
Men's and boys' clothing exc. footwear ..	816	500	186,809	146,419
Women's and girls' wear exc. footwear ...	977	608	358,826	285,930
Footwear exc. infants and toddlers	494	320	67,200	55,486
Sewing, knitting, and needlework goods ..	178	95	25,803	19,439
Curtains, draperies, and dry goods	223	118	33,762	26,956
Major household appliances	173	104	47,975	34,574
Small electric appliances	202	124	31,128	22,813
TVs and video recorders and tapes	156	104	23,670	18,699
Audio equipment and musical instruments and supplies	270	173	47,674	38,482
Furniture and sleep equipment	185	128	73,472	55,307
Floor coverings	122	70	15,436	10,450
Kitchenware and home furnishings	430	270	54,895	43,674
Jewelry	860	584	165,600	137,562
Optical goods	103	73	10,010	8,550
Sporting goods	313	202	56,792	44,229
Hardware, tools, and plumbing and electrical supplies	253	130	56,361	37,555
Lawn and garden equipment and supplies ..	311	183	51,630	37,276
Lumber and building materials	152	82	100,242	54,935
Cars, trucks, and powered vehicles	97	69	391,570	320,107
Automotive fuels	425	286	365,151	274,029
Automotive lubricants	428	282	10,627	7,539
Auto tires, batteries, and accessories ..	518	343	121,699	84,532
All other merchandise	1,220	787	354,915	277,014
Unclassified merchandise	634	434	30,577	24,303
Nonmerchandise receipts	923	676	127,232	96,847
Miscellaneous merchandise	(X)	(X)	2,277	2,076

X Not applicable.

1/ Because some establishments carry more than one merchandise line, the number of establishments for each line will not add to the indicated totals.

Source on next page.

Table 672.-- MERCHANDISE LINE SALES OF RETAIL ESTABLISHMENTS WITH PAYROLL, FOR THE STATE AND OAHU: 1982 -- Con.

Source: U.S. Bureau of the Census, Census of Retail Trade: Merchandise Line Sales, Hawaii, 1982 (unpublished tabulations filed in the Hawaii State Department of Business and Economic Development Library); cited in Hawaii State Department of Planning and Economic Development, Merchandise Line Sales in Hawaii, 1982 (Statistical Report 185, February 24, 1986).

Table 673.-- RETAIL SALES, BY TYPE OF STORE: 1982 AND 1986

[In millions of dollars. Data are estimates]

Type of store	1982	1986
Total 1/	5,193	6,829
Food stores	1,101	1,332
Supermarkets	976	1,186
General merchandise stores	659	822
Department stores	445	572
Automotive dealers	551	1,001
Eating and drinking places	880	1,192
Gasoline service stations	411	354
Apparel and accessories stores	383	598
Building materials, hardware dealers	154	217
Furniture, appliance, home furnishings	167	212
Furniture	59	63

1/ Includes other types of stores, not shown separately.

Source: Market Statistics data cited in Statistical Abstract of the United States: 1988, pp. 740-741.

Table 674.-- DEPARTMENT STORE SALES, FOR OAHU: 1983 TO 1987

[For earlier years, 1948-1982, see Data Book 1984, table 672]

Subject	1983	1984	1985	1986	1987
Number of department stores, Dec. .	(NA)	23	22	(NA)	22
Department store sales 1/ ($1,000)	505,294	527,935	548,771	580,464	635,801

NA Not available.
1/ Includes sales of leased departments.
Source: U.S. Bureau of the Census, "Revised Monthly Retail Sales and Inventories, January 1975 through December 1984," Current Business Reports, BR-13-85 (April 1985), p. 54; "Monthly Retail Trade, Sales and Inventories, December 1985," Current Business Reports, BR-85-12 (Feb. 1986), tables 8 and 8A; "Monthly Retail Trade, Sales and Inventories, January 1988," Current Business Reports, BR-88-01 (April 1988), tables 8 and 8A.

Table 675.-- FOOD STORES AND SUPERMARKETS: 1986

Subject	Amount	Rank 1/
Food stores:		
Number	2,049	...
Sales (million dollars)	1,344.4	...
Supermarkets:		
Number	106	54
Sales (million dollars)	751	54
Square feet per store	14,821	55
Weekly sales per square foot (dollars)	9.19	2
Weekly sales per checkout (dollars)	20,031	18
Population per store	9,573	6
Sales per capita (dollars)	740	54
Employees per store	39.8	33
Checkouts per store	6.8	29

1/ Among 55 market areas in the U.S.
Source: Progressive Grocer's 1988 Marketing Guidebook (1987).

Table 676.-- RESTAURANT CHARACTERISTICS: 1983

[Based on a survey of 1,768 restaurants]

Subject	Percent
Island, total	100.0
Oahu	71.7
Other islands	28.3
Locality, total	100.0
Business district	33.8
Tourist area	24.9
Other	41.3
Type of service, total	100.0
Fast food	27.3
Family	21.6
Other	51.1
Price, total	100.0
Inexpensive	44.2
Moderate	51.8
Expensive	4.0
Ownership, total	100.0
Independent	65.4
Chain-owned	11.6
Other types	23.0
Types of food: 1/	
American	64.4
Japanese	25.8
Chinese	19.8
Seafood	14.8
Hawaiian	14.5
Continental	12.3
Italian	11.1
Korean	8.5
Filipino	7.6
Mexican	7.1
French	4.1
Portuguese	3.7
Meals served, total	100.0
All 3 meals	36.8
Lunch and dinner only	34.0
Breakfast and lunch only	10.5
Other combinations	18.7
Average check, total	100.0
$3.00 or less	27.7
$3.01 to $6.00	37.7
$6.01 to $10.00	18.2
$10.01 or more	16.4
Average amount	$6.44
Liquor served, total	100.0
None	52.8
Liquor, beer, and wine	39.3
Other combinations	7.9
Annual food/beverage sales, total	100.0
Under $100,000	25.1
$100,000 to $299,999	26.3
$300,000 to $999,000	29.3
$1,000,000 and over	19.3
Percent of sales to tourists, total	100.0
Under 10	48.1
10 to 49	24.5
50 or more	27.5
Average number of years in business	10.0
Average number of food and beverage employees	23.9
Full-time	13.8

1/ Multiple responses.

Source: Morton Fox and Danny Breatchel, Survey of the Hawaii Restaurant Industry (University of Hawaii at Manoa, School of Travel Industry Management, 1984).

Table 677.-- LIQUOR AND TOBACCO TAX BASES: 1983 TO 1987

[Wholesale value, in thousands of dollars. By calendar year in which reported; data accordingly refer in general to liquor and tobacco sales for 12-month periods ended November 30. Excludes sales on military bases]

Tax	1983	1984	1985	1986	1987
Liquor tax base 1/	145,935	143,668	161,107	(2/)	(2/)
Base for taxes paid	14,009	57,621	70,352	(2/)	(2/)
Base for taxes contested	131,927	86,047	90,755	(2/)	(2/)
Tobacco tax base	49,580	48,262	47,188	51,796	46,622

1/ In 1979, several major distributors legally contested the State liquor tax law. Tax revenues that otherwise would have been collected under this law were held in escrow until the courts ruled on the case. After the courts finally ruled against the State, the collections held in escrow were divided in 1987 in an out-of-court settlement.

2/ As of July 1, 1986, the excise tax on liquor was replaced by a gallonage tax.

Source: Hawaii State Department of Taxation, "Liquor Tax Base, Collections and Permits; Tobacco Tax Base, Collections and Licenses" (annual release), and records.

Table 678.-- ALCOHOLIC BEVERAGE SALES, BY TYPE: 1987

[Wine gallons of 128 fluid ounces]

Type of beverage	Total sales	Per capita sales 1/
All types	34,898,122	29.1
Distilled spirits	1,752,069	1.5
Sparkling wine	300,090	0.3
Still wine	2,221,919	1.9
Cooler beverage	525,745	0.4
Draft beer	1,552,188	1.3
Beer other than draft	28,546,111	23.8

1/ Based on estimated de facto population.

Source: Hawaii State Department of Taxation, Tax Research and Planning, July 20, 1988.

Table 679.-- CHARACTERISTICS OF MAJOR SHOPPING CENTERS: 1985

[Includes all centers on Oahu with more than 200,000 square feet of building area and all centers on other islands with more than 100,000 square feet of building area]

Island and name of center	Location	Year opened	Site area (acres)	Gross lease-able area (1,000 square feet)	Parking spaces	Number of stores
Oahu:						
Ala Moana Center ...	Honolulu	1959	50	1,500	7,800	155
Kahala Mall	Honolulu	1970	22	370	1,425	60
Pearl City S. C. ...	Pearl City	1965	15	249	871	60
Pearlridge Center ..	Aiea	1972	54	1,200	4,915	150
Royal Hawaiian S. C.	Honolulu	1981	6	280	600	(NA)
Waikiki Shopping Plaza	Honolulu	1977	1	300	300	50
Windward City S.C.	Kaneohe	1959	15	210	(NA)	40
Windward Mall	Kaneohe	1982	32	530	2,300	98
Hawaii:						
Kaiko'o Mall S. C. .	Hilo	1970	14	220	950	33
Maui:						
Kaahumanu Center ...	Kahului	1973	25	300	1,400	50
Kahului S. C.	Kahului	1951	17	104	1,000	30
Maui Mall	Kahului	1971	25	182	1,400	38
Kauai:						
Kukui Grove Center	Lihue	1982	35	311	1,590	52
Lihue S. C.	Lihue	1966	9	142	551	24

NA Not available.

Source: Hawaii Chapter, International Council of Shopping Centers, and the Chamber of Commerce of Hawaii, Hawaii Shopping Center Directory, 1985 Edition.

Table 680.-- MAJOR RETAIL CENTERS, FOR OAHU: 1972 TO 1982

[These tabulations were discontinued after 1982]

Geographic area	Number of retail establishments			Retail sales ($1,000)		
	1972	1977	1982	1972	1977	1982
Oahu total 1/ .	4,235	5,262	6,347	1,489,602	2,574,973	3,962,598
Honolulu CBD: 2/						
1972 definition ..	353	415	(NA)	65,471	94,811	(NA)
1977 definition ..	(NA)	485	523	(NA)	122,873	177,254
Ala Moana Center ...	224	187	196	218,844	307,498	423,895
Waikiki 3/	597	646	1,082	169,084	307,233	600,615
Kahala Mall	60	55	54	41,625	47,407	*82,977
Pearlridge Center ..	32	102	133	18,606	118,867	*173,953

* Excludes establishments without payroll (Kahala Mall, 1; Pearlridge Center, 3).

NA Not available.

1/ Includes establishments not in major retail centers.

2/ The Honolulu Central Business District was redefined in 1977 to include the area bounded by Nuuanu Stream, School Street, Queen Emma Street, Beretania Street, Richards Street, Halekauwila Street, and Honolulu Harbor. Before 1977, the CBD as defined excluded that part between Beretania Street and School Street. For comparable statistics back to 1948, see DPED Statistical Memorandum 80-7 (July 31, 1980).

3/ Waikiki is defined as the area bounded by the Ala Wai Canal, Kapahulu Avenue, and the Pacific Ocean.

Source: Hawaii State Department of Planning and Economic Development, Retail Trade in Downtown Honolulu, 1948-1977 (Statistical Memorandum 80-7, July 31, 1980). U.S. Bureau of the Census, 1972 Census of Retail Trade, Major Retail Centers, Hawaii, RC72-C-12 (November 1974), table 1; 1977 Census of Retail Trade, Major Retail Centers, Hawaii, RC77-C-12 (February 1980), table 1; 1982 Census of Retail Trade, Major Retail Centers, Hawaii, RC82-C-12 (October 1984), table 1.

Table 681.-- PERCENT OF OAHU RETAIL SALES IN MAJOR RETAIL CENTERS: 1948 TO 1982

[These series were discontinued after 1982]

Year	Honolulu CBD 1/		Ala Moana Center	Waikiki	Kahala Mall	Pearlridge Center
	1972 defin.	1977 defin.				
1948	24.4	27.5	...	5.4	...	...
1954	19.7	(NA)	...	(NA)	(NA)	...
1958	15.4	(NA)	...	7.7	1.0	...
1963	9.1	9.5	10.8	7.6	(NA)	...
1967	6.1	(NA)	13.6	9.3	1.8	...
1972	4.4	(NA)	14.7	11.4	2.8	1.2
1977	3.7	4.8	11.9	11.9	1.8	4.6
1982	(NA)	4.5	10.7	15.2	*2.1	*4.5

*Based on data limited to establishments with payroll.

NA Not available.

1/ See preceding table, footnote 2.

Source: Hawaii State Department of Planning and Economic Development, Major Retail Centers on Oahu, 1972-1982 (Statistical Memorandum 84-4, November 14, 1984), table 2.

Table 682.-- SHOPPING CENTER CHARACTERISTICS: 1986 AND 1987

Subject	1986	1987
Number of shopping centers	117	123
Total leasable retail area (million square feet)	12.3	12.7
Retail sales in shopping centers (billion dollars)	2.0	2.2
Percent of total nonautomotive retail sales	39	39
Number of adults shopping in centers monthly (1,000)	740	740
State sales tax revenues from shopping centers (million dollars)	82	87
Employment in shopping centers (1,000)	33	34
Percent of total nonagricultural employment	8	8
New center construction starts	None	1
Construction contract value (million dollars)	None	2

Source: International Council of Shopping Centers, The Scope of the Shopping Center Industry in the United States 1988 (New York, 1988), p. 16.

Table 683.-- RETAIL SHOPPING MALL SPACE AND RENTAL RATES, FOR OAHU: 1987

Mall classification	Number of centers	Gross leasable area (1,000 sq. ft.)	Vacant		Rental rates (dollars per sq. ft. per mo.)		Common area maintenance (dollars per sq. ft. per mo.)
			1,000 sq. ft.	Percent	Low	High	
Total	80	9,280	419	4.5	1.15	8.00	...
Neighborhood ..	30	2,467	96	3.0	1.15	2.25	0.27
Strip	26	777	118	11.0	1.25	3.00	0.30
Specialty	13	1,182	95	7.4	1.75	6.50	0.83
Community	7	1,241	79	5.8	1.25	2.25	0.26
Regional	2	913	30	3.3	1.55	5.25	0.43
Super regional	2	2,700	1	0.0	3.00	8.00	0.53

Source: Grubb & Ellis, Hawaii Real Estate 1988, p. 14.

Table 684.-- VIDEOCASSETTE RECORDER SALES: 1978 TO 1987

Year	Total units	Residential use	Commercial use
1978	2,196	2,140	56
1979	3,332	3,124	208
1980	4,892	4,555	337
1981	7,514	6,946	568
1982	15,566	15,178	388
1983	25,360	25,032	328
1984	44,720	44,285	435
1985	63,782	62,548	1,234
1986	52,203	51,795	408
1987	50,822	50,383	439

Source: Hawaiian Electric Company, Inc., Market Research, records.

Table 685.-- RETAIL SALES AND HOTEL RECEIPTS OF ESTABLISHMENTS OPERATED FOR MILITARY PERSONNEL: 1972 TO 1987

[In thousands of dollars. For earlier years, see Data Book 1987, table 689]

Year	Retail sales 1/			Hotel receipts 3/
	Total	Commissaries	All other retail sales 2/	
1972	136,088	37,618	98,470	-
1973	144,857	41,017	103,840	-
1974	158,481	45,682	112,799	-
1975	215,947	67,459	148,488	-
1976	229,987	67,183	155,804	6,365
1977	230,601	66,550	164,051	7,356
1978	261,462	77,034	184,429	8,151
1979	266,555	83,595	182,960	8,922
1980	316,985	98,237	218,748	10,114
1981	360,518	107,236	253,281	11,767
1982	405,021	115,314	289,707	13,796
1983	430,354	127,229	303,125	14,288
1984	442,820	129,796	313,023	14,341
1985	438,001	135,014	302,987	14,573
1986	454,093	139,077	315,016	15,839
1987	465,168	145,796	319,372	16,902

1/ Calendar year statistics.

2/ Exchanges, eating and drinking places, and related facilities. Data are incomplete for food service facilities before 1977 and miscellaneous facilities before 1982.

3/ Room, food, and beverage receipts of Hale Koa Hotel, for years ended September 30. Hale Koa opened in October 1975.

Source: Hawaii State Department of Planning and Economic Development, Retail Sales and Hotel Receipts of the Armed Forces, 1986 (Statistical Report 198, May 7, 1987), table 2, as updated.

Table 686.-- RETAIL SALES AND HOTEL RECEIPTS AT CIVILIAN AND MILITARY ESTABLISHMENTS: 1982 TO 1987

[In millions of dollars]

Year	Retail sales 1/			Hotel receipts 2/		
	Total	Civilian	Military	Total	Civilian	Military
1982	7,280.0	6,875.0	405.0	852.3	838.5	13.8
1983	7,868.6	7,438.2	430.4	867.2	852.9	14.3
1984	8,554.7	8,111.9	442.8	987.9	973.6	14.3
1985	8,937.3	8,499.3	438.0	1,113.2	1,098.6	14.6
1986	9,693.5	9,239.4	454.1	1,151.8	1,136.0	15.8
1987	10,562.4	10,097.2	465.2	1,428.7	1,411.8	16.9

1/ Calendar year statistics.
2/ Years ended September 30.
Source: Hawaii State Department of Planning and Economic Development, Retail Sales and Hotel Receipts of the Armed Forces, 1986 (Statistical Report 198, May 7, 1987), as updated.

Table 687 .-- DUTY-FREE STORE REVENUES: 1981 TO 1987

[In dollars. These sales revenues are not included in the general excise and use tax base data cited elsewhere in this volume]

Year	Revenues	Year	Revenues
1981	145,264,415	1985	180,126,919
1982	145,382,976	1986	270,891,959
1983	150,424,959	1987	369,788,429
1984	170,661,949		

Source: Honolulu Star-Bulletin, December 11, 1987, p. D-1; Duty Free Shoppers Limited Partnership, July 21, 1988.

Table 688.-- CHARACTERISTICS OF WHOLESALE ESTABLISHMENTS, FOR THE STATE, 1977 AND 1982, AND OAHU AND THE NEIGHBOR ISLANDS, 1982

Subject	1977	1982		
		State total	Oahu	Neighbor Islands
Number of establishments	1,569	1,737	1,417	320
Sales ($1,000)	2,571,489	4,084,369	3,392,728	691,641
Annual payroll ($1,000)	177,556	287,626	250,836	36,790
First quarter payroll ($1,000)	43,517	69,858	(NA)	(NA)
Paid employees for pay period including March 12 (number)	14,695	17,210	14,750	2,460
Operating expenses ($1,000)	375,803	620,882	(NA)	(NA)
Inventories ($1,000):				
Beginning of year	(NA)	457,525	(NA)	(NA)
End of year	248,195	440,723	(NA)	(NA)

NA Not available.

Source: U.S. Bureau of the Census, *1977 Census of Wholesale Trade, Hawaii*, WC77-A-12 (Revised) (March 1980), table 1; *1982 Census of Wholesale Trade, Hawaii*, WC82-A-12 (September 1984), tables 1, 2, 4, and 5.

Table 689.-- WHOLESALE ESTABLISHMENTS, EMPLOYMENT, AND PAYROLL: 1985 AND 1986

Major industry group	Number of establishments		Employees, week including Mar. 12		Annual payroll ($1,000,000)	
	1985	1986	1985	1986	1985	1986
All wholesale trade	1,827	1,837	18,281	19,037	364.8	399.6
Durable goods	921	932	8,938	9,767	197.0	223.2
Nondurable goods	883	885	9,006	8,938	158.5	167.1
Administrative and auxiliary	23	20	337	332	9.3	9.2

Source: U.S. Bureau of the Census, *County Business Patterns 1986, Hawaii*, CBP-86-13 (August 1988), p. 1.

Table 690.-- WHOLESALE TRADE, FOR COUNTIES AND SPECIFIED PLACES: 1982

Geographic area	All wholesalers		Merchant wholesalers	
	Number of establishments	Sales ($1,000)	Number of establishments	Sales ($1,000)
State total	1,737	4,084,369	1,434	2,496,494
Hawaii County	159	285,513	133	152,353
Hilo	107	242,071	90	(D)
Kailua	16	11,835	15	(D)
Honolulu County	1,417	3,392,728	1,169	2,140,295
Aiea	26	64,848	21	58,510
Ewa Beach	12	42,470	10	(D)
Honolulu	1,221	2,950,750	1,016	1,872,910
Kailua	30	25,978	16	5,776
Kaneohe	13	7,460	11	(D)
Pearl City	28	73,908	22	37,300
Waipahu	31	103,617	27	72,012
Kauai County	51	81,030	40	52,557
Lihue	33	55,556	25	40,755
Maui County	110	325,098	92	151,289
Island of Lanai	1	(D)	-	-
Island of Molokai	3	(D)	1	(D)
Kahului	54	189,855	43	(D)
Wailuku	35	41,769	32	(D)

(D) Withheld to avoid disclosing data for individual companies.

Source: U.S. Bureau of the Census, *1982 Census of Wholesale Trade, Hawaii*, WC82-A-12 (September 1984), table 8.

Table 691.-- WHOLESALE TRADE, BY TYPE OF OPERATION AND KIND OF BUSINESS: 1982

Type of operation and kind of business	Number of establishments	Sales ($1,000)
Wholesale trade	1,737	4,084,369
Type of operation:		
Merchant wholesalers	1,434	2,496,494
Manufacturers' sales branches and offices	160	1,269,797
Agents, brokers, and commission merchants	143	318,078
Kind of business:		
Motor vehicles and automotive parts and supplies	103	293,883
Furniture and home furnishings	59	68,643
Lumber and other construction materials	91	126,739
Sporting, recreational, photo, and hobby goods, toys and supplies	53	83,413
Metals and minerals, except petroleum	12	25,358
Electrical goods	107	244,951
Hardware, and plumbing and heating equipment and supplies	83	98,641
Machinery, equipment, and supplies	268	418,117
Miscellaneous durable goods	123	83,484
Paper and paper products	66	104,774
Drugs, drug proprietaries, and druggists' sundries	42	122,196
Apparel, piece goods, and notions	70	71,081
Groceries and related products	339	1,187,153
Farm-product raw materials	4	4,182
Chemicals and allied products	33	68,316
Petroleum and petroleum products	42	671,552
Beer, wines, and distilled alcoholic beverages	37	175,607
Miscellaneous nondurable goods	205	236,279

Source: U.S. Bureau of the Census, 1982 Census of Wholesale Trade, Hawaii, WC82-A-12 (September 1984), table 2.

Table 692.-- CHARACTERISTICS OF SERVICE ESTABLISHMENTS WITH PAYROLL AND SUBJECT TO FEDERAL INCOME TAX, FOR THE STATE, 1977 AND 1982, AND OAHU AND THE NEIGHBOR ISLANDS, 1982

Subject	1977	1982		
		State total	Oahu	Neighbor islands
Number of establishments	(NA)	6,124	4,864	1,260
Excluding health services 1/ ...	(NA)	4,470	3,535	935
Receipts ($1,000)	(NA)	2,659,651	1,974,216	685,435
Excluding health services 1/ ...	1,269,740	2,239,440	1,642,415	597,025
Annual payroll ($1,000)	(NA)	904,328	688,918	215,410
Excluding health services 1/ ...	409,725	729,107	550,547	178,560
First quarter payroll ($1,000) ...	(NA)	221,453	169,166	52,287
Paid employees for pay period including March 12 (number)	(NA)	71,051	52,849	18,202

NA Not available.

1/ Other than hospitals.

Source: U.S. Bureau of the Census, 1982 Census of Service Industries, Hawaii, SC82-A-12 (September 1984), tables 1a, 2a, 4a, and 5a.

Table 693.-- SERVICE ESTABLISHMENTS, EMPLOYMENT, AND PAYROLL, FOR SELECTED INDUSTRY GROUPS: 1985 AND 1986

Major industry group	Number of establishments		Employees, week including March 12		Annual payroll (mil. dol.)	
	1985	1986	1985 1/	1986	1985 1/	1986
All services ...	8,145	8,457	116,442	121,398	1,797	1,970
Hotels	250	261	33,225	33,067	468	515
Business services ...	1,095	1,175	15,146	15,848	187	200
Health services	1,921	6,997	21,361	23,251	465	518

1/ Revised.

Source: U.S. Bureau of the Census, County Business Patterns 1986, Hawaii, CBP-86-13 (August 1988), p. 2.

Table 694.-- SERVICE ESTABLISHMENTS WITH PAYROLL AND SUBJECT TO FEDERAL INCOME TAX, FOR COUNTIES AND SELECTED URBAN PLACES: 1982

Geographic area	Number of establishments		Receipts ($1,000)	
	All services	Hotels 1/	All services	Hotels 1/
State total	6,124	209	2,659,651	973,328
Hawaii County	551	31	258,568	142,430
Hilo	328	11	84,145	11,746
Kailua	91	11	53,919	38,275
Honolulu County	4,864	118	1,974,216	575,692
Aiea	134	2	28,124	(D)
Ewa Beach	12	-	1,796	-
Honolulu	3,958	109	1,762,672	543,972
Kailua	200	1	31,712	(D)
Kaneohe	122	-	22,444	-
Makakilo City	20	-	2,374	-
Mililani Town	16	-	3,504	-
Pearl City	103	-	20,529	-
Wahiawa	85	-	13,646	-
Waianae	24	2	10,889	(D)
Waipahu	76	-	15,329	-
Kauai County	211	22	88,590	43,623
Kapaa	34	5	13,104	8,793
Lihue	103	5	47,610	(D)
Maui County	498	38	338,277	211,583
Island of Lanai ...	5	1	677	(D)
Island of Molokai .	14	2	3,134	(D)
Kahului	145	2	59,277	(D)
Kihei	25	3	7,434	(D)
Lahaina	68	15	98,651	83,472
Wailuku	174	1	40,639	(D)

D Withheld to avoid disclosing data for individual companies.

1/ Including motels and other lodging places (SIC 70), but excluding condominium apartments in transient use.

Source: U.S. Bureau of the Census, 1982 Census of Service Industries, Hawaii, SC82-A-12 (September 1984), table 8.

Table 695.-- SERVICE ESTABLISHMENTS WITH PAYROLL AND SUBJECT TO FEDERAL INCOME TAX, BY KIND OF BUSINESS OR OPERATION: 1982 AND 1977

SIC code	Kind of business or operation	Number of establishments, 1982	Receipts 1982 ($1,000)	Receipts 1977 ($1,000)	Receipts Percent change
	Total	6,124	2,659,651	(D)	(D)
70	Hotels, motels, other lodging	209	973,328	548,706	77.4
72	Personal services	663	100,785	70,708	42.5
73	Business services	1,024	313,686	154,427	103.1
75	Automotive repair, services, and garages .	567	249,342	157,015	58.8
76	Miscellaneous repair services	241	47,779	32,369	47.6
78, 79	Amusement and recreation services, incl. motion pictures	312	128,452	79,777	61.0
80, ex. 806	Health services, except hospitals	1,654	420,211	(D)	(D)
81	Legal services	636	173,129	65,120	165.9
823, 4, 9	Selected educational services	58	8,032	6,333	26.8
891	Engineering, architectural, surveying serv.	336	158,104	107,129	47.6
893	Accounting, auditing, bookkeeping services ..	308	75,046	43,444	72.7
83, 892, 9	Social and other services	116	11,757	4,712	149.5

D Withheld to avoid disclosing data for individual companies.

Source: U.S. Bureau of the Census, *1982 Census of Service Industries, Hawaii*, SC82-A-12 (September 1984), tables 1a and 2a.

Table 696.-- HOTELS, MOTELS, AND OTHER LODGING PLACES: 1982

[Includes only establishments with payroll]

Subject	Number of establish-ments	Receipts ($1,000)	Annual payroll ($1,000)	Paid employees, pay period including March 12
SUBJECT TO FEDERAL INCOME TAX				
Hotels, motels, other lodging .	209	973,328	287,299	26,078
Hotels	178	964,192	284,833	25,718
25 guestrooms or more	158	962,079	284,296	25,644
Less than 25 guestrooms	20	2,113	537	74
Motels, motor hotels, tourist courts	26	8,935	2,421	352
Other lodging places 1/	5	201	45	8
EXEMPT FROM FEDERAL INCOME TAX				
Hotels, camps, membership lodging 2/	8	1,319	473	64

1/ Trailering parks and camps, 1 establishment; rooming, boarding, and membership lodging, 4.

2/ Hotels, 2 establishments; sporting and recreational camps, 3; organization hotels and lodging houses, on membership basis, 3.

Source: U.S. Bureau of the Census, 1982 Census of Service Industries, Hawaii, SC82-A-12 (September 1984), pp. 3 and 5.

Table 697.-- HOTEL UNITS AND OCCUPANCY RATES, BY GEOGRAPHIC AREAS: 1967 TO 1988

[Includes condominium units in rental pools for transient occupancy]

Year	Number of hotel units, February			Percent of units occupied, annual average		
	State total	Oahu	Neighbor Islands	State total 1/	Waikiki	Neighbor Islands
1967	17,217	12,598	4,619	85.5	90.0	72.8
1968	18,657	13,166	5,491	83.7	89.2	75.2
1969	22,801	15,992	6,809	77.8	81.3	69.3
1970	26,923	18,449	8,474	71.2	74.1	64.8
1971	32,289	22,531	9,758	60.4	58.9	63.5
1972	35,797	24,742	11,055	68.9	70.0	66.4
1973	36,608	25,108	11,500	77.7	81.5	70.2
1974	38,675	25,365	13,310	77.5	82.0	69.4
1975	39,632	25,352	14,280	74.1	78.3	68.3
1976	42,648	25,851	16,797	76.9	82.6	68.4
1977	44,986	27,363	17,623	77.4	81.2	71.7
1978	47,070	28,546	18,524	79.5	82.1	75.5
1979	49,832	30,065	19,767	73.8	77.1	70.2
1980	54,246	34,334	19,912	69.3	71.7	64.1
1981	56,769	33,967	22,802	68.2	73.9	59.8
1982	57,968	33,492	24,476	70.4	77.7	60.0
1983	58,765	34,354	24,411	69.7	76.6	60.9
1984	62,448	36,848	25,600	76.0	82.6	69.1
1985	65,919	38,600	27,319	76.1	80.8	69.7
1986	66,308	39,010	27,298	81.7	85.7	75.3
1987	65,318	38,185	27,133	81.1	87.2	70.7
1988	69,012	37,841	31,171	(NA)	(NA)	(NA)

NA Not available.

1/ Data include Oahu outside Waikiki, not shown separately.

Source: Hawaii Visitors Bureau, Annual Research Report (annual), Visitor Plant Inventory (periodic), and records.

Table 698.-- VISITOR ACCOMMODATIONS, BY TYPE, 1978 TO 1988, AND BY ISLANDS, 1988

[As of February]

Year and island	Properties			Units		
	Total	Hotels 1/	Condominiums 2/	Total	Hotels 1/	Condominiums 2/
1978	353	(NA)	(NA)	47,070	40,001	7,069
1979	381	(NA)	(NA)	49,832	41,299	8,533
1980	387	(NA)	(NA)	54,246	42,609	11,637
1981	412	214	198	56,769	42,575	14,194
1982	417	208	209	57,968	43,568	14,400
1983	426	218	208	58,765	45,352	13,413
1984	443	209	234	62,448	44,846	17,602
1985	481	207	274	65,919	44,115	21,804
1986	523	201	322	66,308	43,309	22,999
1987	510	196	314	65,318	43,422	21,896
1988	481	203	278	69,012	47,892	21,120
ISLANDS: 1988						
Oahu	183	110	73	37,841	30,206	7,635
Waikiki 3/	150	89	61	33,661	26,911	6,750
Rest of Oahu	33	21	12	4,180	3,295	885
Other islands	298	93	205	31,171	17,686	13,485
Hawaii	75	29	46	8,823	6,469	2,354
Maui	137	29	108	14,591	6,556	8,035
Lanai	1	1	-	10	10	-
Molokai	7	2	5	567	326	241
Kauai	78	32	46	7,180	4,325	2,855

NA Not available.

1/ Hotels, apartment hotels, motels, and cottages. Excludes condominium properties.

2/ Condominium accommodations in rental pools for transient use.

3/ Includes Diamond Head and Kahala but not areas ewa and mauka (west and north) of the Ala Wai Canal. The 89 hotel properties include 66 hotels (with 25,907 units), 23 apartment hotels (with 1,004 units), and no cottage properties.

Source: Hawaii Visitors Bureau, Visitor Plant Inventory, 1978 to 1988.

Table 699.-- GENERAL EXCISE TAX BASE FOR RENTALS: 1977 TO 1987

[In thousands of dollars. Data are on a cash basis accounting]

Year reported 1/	Total	Hotel rentals	All other rentals 2/
1977 3/	1,274,918	482,990	791,929
1978 3/	1,392,947	535,874	857,073
1979	1,699,947	672,098	1,027,848
1980	1,820,715	708,620	1,112,095
1981	2,040,505	770,705	1,269,800
1982	2,265,287	844,926	1,420,361
1983	2,470,820	876,227	1,594,593
1984	2,743,855	984,518	1,759,337
1985	3,037,254	1,122,268	1,914,986
1986	3,278,450	1,212,782	2,065,668
1987	3,674,703	1,457,812	2,216,891

1/ Calendar year in which reported, including "prior years" reports. Income received in December is reported the following January, hence these annual totals generally refer to an "income year" ended November 30.

2/ Includes residential, office, automobile, and equipment rentals, and land leases.

3/ Partly estimated.

Source: Hawaii State Department of Taxation, "General Excise and Use Tax Base" (annual tabular release).

Table 700.-- HOTEL OCCUPANCY AND ROOM RATES, AND FOOD AND BEVERAGE SALES, BY ISLANDS: ANNUAL AVERAGES, 1986 AND 1987

[1986 figures revised from Data Book 1987, table 704]

Subject and year	The State	Oahu	Hawaii	Maui	Kauai	Molokai
Percentage of occupancy:						
1986	81.20	85.16	62.15	82.73	76.74	50.30
1987	81.09	86.79	60.83	76.22	74.15	45.40
Average daily room rate (dollars):						
1986	72.67	61.99	73.88	115.33	71.56	56.73
1987	80.09	69.04	82.21	127.05	81.65	64.26
Average daily guest rate (dollars):						
1986	36.44	31.74	37.19	54.72	34.09	26.05
1987	40.23	35.59	41.32	59.89	37.64	28.90
Average daily food sales per room (dollars):						
1986	20.03	16.01	29.85	28.72	24.25	31.65
1987	20.36	16.98	31.31	28.81	22.50	31.73
Average daily beverage sales per room (dollars):						
1986	6.71	5.00	10.39	10.99	7.92	9.49
1987	6.51	5.00	9.95	11.16	6.94	10.36
Average food sales per cover (dollars):						
1986	10.93	10.07	12.49	12.26	11.67	9.55
1987	11.67	10.83	13.55	13.19	12.54	10.33

Source: Pannell Kerr Forster, Trends in the Hotel Industry, Hawaii, December 1987.

Table 701.-- PERCENT OF HOTEL UNITS OCCUPIED, BY GEOGRAPHIC AREAS: ANNUAL AVERAGES, 1980 TO 1987

[Includes resort condominium units. Coverage prior to 1986 excluded several major hotel chains]

Geographic area	1980	1981	1982	1983	1984	1985	1986	1987
State total	69.3	68.2	70.4	69.7	76.0	76.1	81.7	81.1
Oahu	72.3	74.1	77.8	75.8	81.2	81.5	85.4	86.8
Waikiki	71.7	73.9	77.7	76.6	82.6	80.8	85.7	87.2
Hawaii	51.0	44.9	44.0	44.7	55.6	57.6	62.9	60.8
Hilo	34.4	35.3	37.7	39.2	58.2	57.8	54.6	55.3
Kailua-Kona	59.0	49.4	46.9	47.0	54.9	57.5	64.6	62.5
Maui	74.2	70.3	73.9	75.2	80.5	78.5	81.5	76.2
West Maui	76.1	73.7	78.0	77.8	84.1	82.5	85.8	79.8
Other	68.4	58.3	61.4	67.0	70.3	69.6	70.9	66.9
Kauai	69.6	62.7	57.5	57.2	63.0	64.8	77.6	74.2
South	52.5	46.2	44.2	50.2	63.1	70.1	82.1	80.6
East	75.1	68.5	63.4	59.3	63.0	62.6	75.4	71.8
Molokai	...	...	...	...	...	...	50.3	45.4
Neighbor island average	64.1	59.8	60.0	60.9	69.1	69.7	75.3	70.7

Source: Hawaii Visitors Bureau, *Annual Research Report* for 1980-1986 and records, from surveys by Pannell Kerr Forster for the Hawaii Hotel Association.

Table 702.--AVERAGE DAILY ROOM AND GUEST RATES, BY ISLANDS: 1978 TO 1988

[In dollars. Annual averages, unless otherwise specified]

Type of rate and year	The State	Oahu	Hawaii	Maui	Kauai	Molokai 1/
Average daily room rate:						
1978	38.49	35.95	36.46	47.49	42.20	...
1979	44.41	41.32	41.93	57.10	47.90	...
1980	47.28	42.83	46.40	61.14	54.38	...
1981	49.73	43.05	47.16	73.27	56.06	...
1982	51.78	44.80	47.37	75.02	58.48	...
1983	54.78	46.93	48.84	81.60	59.78	...
1984	59.25	49.45	57.17	88.89	65.05	...
1985	68.84	57.70	64.06	98.51	70.06	...
1986	73.20	62.13	75.19	113.66	75.37	56.73
1987	80.09	69.04	82.21	127.05	81.65	64.26
1988 2/	88.52	75.95	88.23	135.75	95.40	61.40
Average daily guest rate:						
1978	19.41	18.23	18.41	23.62	20.60	...
1979	22.70	21.10	21.59	29.70	23.75	...
1980	24.40	22.32	24.03	31.52	26.32	...
1981	25.70	22.56	24.41	37.04	27.42	...
1982	26.44	23.39	24.64	35.82	28.84	...
1983	27.71	24.28	22.29	40.53	29.66	...
1984	29.59	24.91	29.00	43.64	31.31	...
1985	34.39	29.24	32.33	47.86	33.95	...
1986	36.80	31.83	38.16	54.36	36.03	26.05
1987	40.23	35.59	41.32	59.89	37.64	28.90
1988 2/	44.29	39.07	43.35	63.88	44.35	30.14

1/ Not available before 1986.

2/ First nine months.

Source: Pannell Kerr Forster, Trends in the Hotel Industry, Hawaii (monthly).

Table 703.-- HOTEL EMPLOYMENT, PAYROLL, AND RENTAL RATIOS: 1984 TO 1987

[All series in this table exclude condominium units in rental pools for transient occupancy]

Subject	1984	1985	1986	1987
Hotel units, February	44,846	44,115	43,309	43,422
Hotel employment, annual average 1/	28,262	28,947	29,300	30,700
Per hotel unit	0.630	0.656	0.677	0.707
Hotel payrolls, annual 1/ ($1,000) .	369,292	393,701	424,684	472,253
Per hotel unit (dollars)	8,235	8,924	9,806	10,876
Per hotel employee (dollars)	13,067	13,601	14,494	15,383
Hotel rentals, annual 2/ ($1,000) ..	984,518	1,122,268	1,212,782	1,457,812
Per hotel unit (dollars)	21,953	25,440	28,003	33,573
Per hotel employee (dollars)	34,835	38,770	41,392	47,486

1/ For workers covered by the Hawaii Employment and Security Law.

2/ General excise tax base.

Source: Hawaii Visitors Bureau, Visitor Plant Inventory (February issues); Hawaii State Department of Labor and Industrial Relations, Employment and Payrolls in Hawaii (annual); Hawaii State Department of Taxation, "General Excise and Use Tax Base" (annual tabular release).

Table 704.-- TRAVEL AGENCIES, TOUR OPERATORS, AND RELATED SERVICES (SIC 4722), BY COUNTIES: 1986

Subject	State total	Honolulu	Hawaii	Kauai	Maui
Establishments with payroll	471	382	28	15	46
Employees, week including March 12	5,268	4,525	252	169	322
Annual payroll ($1,000)	69,240	60,936	2,755	1,934	3,616

Source: U.S. Bureau of the Census, County Business Patterns 1986, Hawaii, CBP-86-13 (August 1988).

Table 705.-- MOTION PICTURE SERVICES: 1963 TO 1986

[Data limited to establishments with payroll]

Subject and year	Number of establishments	Receipts ($1,000)	Annual payroll ($1,000)	Paid employees, week inc. Mar. 12
Motion picture production, distribution, and services:				
1963	4	(D)	(D)	(D)
1967	4	(D)	(D)	(D)
1972	7	(D)	(D)	(D)
1977	11	926	174	31
1982	15	4,203	1,147	74
1986	1/ 29	(NA)	2,119	121
Motion picture theaters:				
1963	74	(D)	(D)	(D)
1967	56	(D)	(D)	(D)
1972	59	11,982	2,305	762
1977 2/	50	17,444	(D)	(D)
1982	34	21,329	3,195	519
1986	42	(NA)	4,452	590

NA Not available.

D Withheld to avoid disclosing data for individual companies.

1/ Motion picture production and services, 25 establishments; motion picture distribution and services, 4 establishments.

2/ Data include 3 establishments without payroll.

Source: U.S. Bureau of the Census, 1963 Census of Business, Selected Services, Hawaii, BC63-SA13 (1963); 1972 Census of Selected Service Industries, Hawaii, SC72-A-12 (July 1974); 1977 Census of Service Industries, Hawaii, SC77-A-12 (December 1979); 1982 Census of Service Industries, Hawaii, SC82-A-12 (September 1984); 1982 Census of Service Industries, Motion Picture Industry, SC82-I-4 (December 1985); and County Business Patterns 1986, Hawaii, CBP-86-13 (August 1988), p. 10.

Table 706.-- MOTION PICTURE AND TELEVISION PRODUCTION: 1976 TO 1987

Subject	1976	1977	1978	1979	1980 1/	1981 2/
Number of features and programs filmed	31	63	58	54	58	54
Feature films for theater viewing	3	4	3	6	6	2
Feature films for TV viewing	1	5	5	8	2	1
Television specials and series 3/	27	54	50	40	50	51
Gross budgets (millions of dollars) 4/	26	39	45	78.5	47.5	40
Feature films and television specials and series	20	30	36	63.5	36.5	32
Television commercials and related advertising	6	9	9	15	11	8
Expenditures in Hawaii for feature films and TV specials and series (millions of dollars)	11	16	22	34.75	21.2	17
Tax revenues generated (millions of dollars)	1.01	1.51	2.04	3.14	1.9	1.5
Employment: Total	918	1,265	1,610	2,543	1,551	1,244
Direct	622	856	1,091	1,723	1,051	843
Spending effect on economy (millions of dollars)	29.2	42.4	58.2	91.9	48.2	38.7

Continued on next page.

Table 706.-- MOTION PICTURE AND TELEVISION PRODUCTION: 1976 TO 1987 - Con.

Subject	1982	1983	1984	1985	1986	1987
Number of features and programs filmed	66	63	76	66	81	109
Feature films for theater viewing	1	1	2	1	3	4
Feature films for TV viewing	3	2	2	4	2	2
Television specials and series 3/	62	60	72	61	76	103
Gross budgets (millions of dollars) 4/	50.0	65.5	77.1	80.6	63.6	232.6
Feature films and television specials and series	37.6	41.2	53.4	60.5	52.9	209.2
Television commercials and related advertising	12.4	24.3	23.7	20.1	10.7	23.4
Expenditures in Hawaii for feature films and TV specials and series (millions of dollars)	31.6	35.2	38.2	40.6	35.3	50.5
Tax revenues generated (millions of dollars)	2.98	3.32	3.54	3.8	3.1	4.5
Employment: Total	2,625	2,575	2,720	(NA)	(NA)	(NA)
Direct	1,567	1,745	1,850	(NA)	700	(NA)
Spending effect on economy (millions of dollars)	71.9	80.1	86.9	90	78	114.8

NA Not available.

1/ Activity affected by a prolonged strike of the Screen Actors guild, which affected major productions during much of 1980, and changes in immigration regulation enforcement policies, which brought filming of foreign TV commercials to a virtual halt.

2/ Activity affected by a writers' strike, directors' strike, and continuation of the strict enforcement of immigration regulations initiated in 1980.

3/ Each program in a series counted separately.

4/ Includes post-production costs out of the State.

Source: Hawaii State Department of Business and Economic Development, Film Industry Branch, records.

Section 24

FOREIGN AND INTERSTATE COMMERCE

This section includes data on the flow of goods, services, and capital between Hawaii and the rest of the world, with particular emphasis on trade and investment involving foreign countries.

Imports to Hawaii from foreign nations rose from $1.04 billion in 1977 to $1.77 billion in 1987. Exports to foreign countries amounted to only $98 million in 1977, but by 1987 reached $393 million. These figures, it should be noted, refer to merchandise imports and exports through the Honolulu Customs District. They do not necessarily represent exports of commodities originating in Hawaii, nor imports for direct consumption within the State.

Trade with the Mainland United States has similarly risen in the past decade. Merchandise received from the Mainland increased from $2.0 billion in 1975 to $5.6 billion in 1985. Estimates of the value of merchandise shipped to the Mainland are no longer available.

Among the foreign nations, Hawaii's leading trading partner in 1986 was Japan for both imports and exports. Imports for consumption from Japan amounted to $447 million, or 31 percent of the total, while exports to Japan reached $100 million or 43 percent of all foreign exports. About 42 percent of all imports for consumption were petroleum and natural gas products and monolithic integrated circuits.

Honolulu Foreign Trade Zone No. 9 handled merchandise valued at $73 million in fiscal 1987. Merchandise handled by Subzone No. 9A, the PRI refinery, was valued at $861 million, almost all of it in petroleum and petroleum products. The other three subzones accounted for a combined total of $343 million.

Foreign-owned businesses in Hawaii had a gross book value of $2.0 billion in 1986, owned 52,000 acres, and employed 18,900 persons. Foreign investments in Hawaii between 1959 and 1987 totaled $4.7 billion, four-fifths of it Japanese. During the 15-month period ended in March 1988, Japanese investors spent $890 million on Hawaiian real estate.

Sources for statistics on interstate and foreign commerce include the U.S. Bureau of the Census and Bureau of Economic Analysis, Foreign Trade Zone No. 9 and its four subzones, and the DBED International Services Branch. Further information is found in waterborne cargo data by origin and destination, compiled by the Army Corps of Engineers and cited in Section 18.

Comparable data for the nation as a whole appear in Section 29 of Statistical Abstract of the United States: 1988. Long-term Island trends are summarized in Historical Statistics of Hawaii, Section 21.

Table 707.-- INTERSTATE AND FOREIGN TRADE: 1970 TO 1988

[Merchandise imports and exports, foreign and domestic, in millions of dollars. For 1958-1969, see Data Book 1987, table 713]

Year	Merchandise imports					Merchandise exports, total 2/
	Total	Domestic			Foreign	
		Total	Waterborne	Air 1/		
1970	1,431.5	1,256.8	1,172.5	84.3	174.7	349.4
1971	1,258.1	1,034.6	888.7	145.9	223.6	380.8
1972	1,462.5	1,218.8	1,082.2	136.6	243.7	365.0
1973	1,892.9	1,578.0	1,460.1	117.9	314.9	493.9
1974	2,510.0	1,962.9	1,825.0	137.8	547.2	1,017.9
1975	2,843.0	2,044.8	1,872.8	172.0	798.2	844.7
1976	3,310.8	2,488.8	2,269.2	219.5	822.0	903.6
1977	3,792.1	2,885.1	2,648.3	236.8	907.1	938.4
1978	4,146.1	3,140.9	2,890.0	251.0	1,005.2	1,044.7
1979	5,001.2	3,897.0	3,636.9	260.1	1,104.3	1,182.3
1980	6,239.4	4,779.7	4,577.9	201.9	1,459.7	1,569.2
1981	6,241.3	4,716.1	4,500.2	215.9	1,525.2	1,289.2
1982	5,933.8	4,700.3	4,478.8	221.5	1,233.5	1,333.4
1983	6,461.8	5,096.3	4,856.6	239.7	1,365.5	1,440.7
1984	6,568.0	5,309.4	5,047.9	261.5	1,258.6	1,419.8
1985	6,981.2	5,564.2	5,290.2	274.0	1,417.0	1,336.3
1986 3/ ..	7,693.0	6,098.0	5,800.0	298.0	1,595.0	1,389.8
1987 3/ ..	8,567.9	6,657.0	6,350.0	307.0	1,910.9	1,445.3
1988 4/ ..	9,392.3	7,122.0	6,800.0	322.0	2,270.3	1,503.2

1/ Preliminary, 1982-1985; forecast, 1986-1988.
2/ Not available separately for foreign and domestic exports.
3/ Preliminary.
4/ Forecast.

Source: Hawaii State Department of Business and Economic Development, Hawaii Gross State Product Accounts: 1958 to 1985; Preliminary Estimates: 1986 and 1987; Forecasts: 1988 (1988).

Table 708.-- FOREIGN TRADE THROUGH THE HONOLULU CUSTOMS DISTRICT: 1968 TO 1987

[Value, in millions of dollars, of U.S. imports and exports entered or exported through the Honolulu Customs District. The data may include imports intended for consumption on the Mainland and exports originated on the Mainland]

Year	General imports 1/	Imports for consumption 1/	Exports of foreign and domestic merchandise 2/
1968	142.5	138.7	49.0
1969	171.0	167.3	46.4
1970	174.7	167.4	51.2
1971	223.6	215.5	46.3
1972	244.3	227.5	60.4
1973	340.1	304.9	72.8
1974	645.3	605.5	115.2
1975	784.4	757.6	95.7
1976	915.1	876.5	66.2
1977	1,038.2	988.1	98.3
1978	1,184.5	1,126.4	137.8
1979	1,334.6	1,238.5	176.1
1980	1,842.0	1,721.4	174.3
1981	1,982.2	1,525.4	237.7
1982	1,732.7	1,509.4	219.0
1983	1,828.0	1,433.5	203.3
1984	1,614.2	1,397.9	316.9
1985	1,756.3	1,553.1	388.8
1986	1,556.9	1,425.4	231.1
1987	1,770.1	1,558.6	392.8

1/ Customs value basis. Excludes vessels under their own power or afloat and shipments valued under $251.

2/ Totals are on f.a.s. (free alongside ship) basis.

Source: U.S. Bureau of the Census, U.S. Foreign Trade: Highlights of Exports and Imports, FT990 (through 1973) and Highlights of U.S. Export and Import Trade, FT990 (1974 and later), cumulative totals in December issues.

Table 709.-- FOREIGN TRADE THROUGH THE HONOLULU CUSTOMS DISTRICT, BY METHOD OF TRANSPORTATION: 1987

[See headnote to preceding table]

Category and method of transportation	Value 1/ (million dollars)	Shipping weight (million pounds)
General imports, all methods 2/	1,770.1	(NA)
Vessel	998.4	7,279.2
Air	885.0	31.2
Imports for consumption, all methods 3/	1,558.6	(NA)
Exports, all methods 2/	392.8	(NA)
Vessel	104.7	1,224.4
Air	142.2	23.0

NA Not available.

1/ Customs value basis for imports; f.a.s. (free alongside ship) value basis for exports. See source for definitions.

2/ Includes categories not tabulated by method of transportation, not shown separately.

3/ Not available by method of transportation.

Source: U.S. Bureau of the Census, Highlights of U.S. Export and Import Trade, FT 990, December 1986, tables B-6, C-10, and C-11.

Table 710.-- IMPORTS AND EXPORTS, BY CUSTOMS DISTRICT AND STATE OF ORIGIN AND DESTINATION: 1987

[In millions of dollars]

Subject	Value
General imports (c.i.f. value basis):	
Entered through Honolulu Customs District	1,863.6
Destined for Hawaii 1/	801.6
Exports (f.a.s. value basis):	
Cleared through Honolulu Customs District	392.8
Originated in Hawaii 1/	151.7

1/ Includes commodities through customs districts other than Honolulu. Not available before 1987.

Source: U.S. Bureau of the Census, Highlights of U.S. Export and Import Trade, December 1987, FT 990 (June 1988), tables A-11, B-6, and C-10.

Table 711.-- IMPORTS AND EXPORTS THROUGH THE HONOLULU CUSTOMS DISTRICT, BY REGION OF ORIGIN OR DESTINATION: 1986 AND 1987

[In dollars. Includes all foreign trade through the Honolulu Customs District, and thus may include imports intended for consumption in other States or exports originated in other States. Excludes imports intended for consumption in Hawaii but entering through other customs districts, and exports originated in Hawaii but shipped through other customs districts]

Region	Imports for consumption		Exports of domestic merchandise	
	1986	1987	1986	1987
All regions	1,425,448,868	1,558,625,780	231,101,886	392,820,689
Africa	375,080	5,518,006	301,707	4,870
Asia	1,168,353,226	1,376,898,490	130,866,667	244,820,744
Australia and Oceania ...	169,165,412	91,661,864	75,424,684	115,769,567
Europe	58,231,214	50,938,574	7,482,684	7,377,732
Latin America 1/	5,366,518	3,804,159	624,613	4,324,136
North America 2/	23,957,418	29,804,687	16,401,531	20,523,640

1/ Includes Central and South America, Bermuda, and the Caribbean.

2/ Excluding Latin America.

Source: Hawaii State Department of Business and Economic Development, International Services Branch, Hawaii's Foreign Trade, A Statistical Digest (annual). Compiled from U.S. Bureau of the Census tapes.

Table 712.-- IMPORTS AND EXPORTS THROUGH THE HONOLULU CUSTOMS DISTRICT, TOTAL AND BY LEADING COUNTRIES OF ORIGIN OR DESTINATION: 1987

[See headnote to preceding table]

Country	Total	Imports for consumption	Exports of domestic merchandise
All countries	1,951,446,469	1,558,625,780	392,820,689
Japan	569,382,241	464,219,638	105,162,603
Singapore	283,654,671	279,225,628	4,429,043
Indonesia	231,593,376	228,051,979	3,541,397
Taiwan	168,680,862	157,969,962	10,710,900
Australia	140,349,623	66,087,927	74,261,696
Philippines	113,883,544	111,911,043	1,972,501
Korea, Republic of	112,898,509	52,395,301	60,503,208
China, People's Republic of .	53,589,911	16,655,072	36,934,839
Hong Kong	52,048,310	31,406,090	20,642,220
Canada	50,324,274	29,800,634	20,523,640
New Zealand	34,723,802	23,539,597	11,184,205
Malaysia	18,157,329	18,152,329	5,000
France	16,025,298	15,459,455	565,843
Marshall Islands	13,156,746	34,038	13,122,708
Papua New Guinea	8,997,470	125,671	8,871,799
Italy	8,641,005	8,375,609	265,396
Netherlands	7,549,952	2,828,609	4,721,343
Thailand	7,024,422	6,158,139	866,283
United Kingdom of Great Britain & Northern Ireland	6,496,921	5,708,508	788,413
Saudi Arabia	5,127,927	5,125,908	2,019
Denmark	4,999,807	4,999,807	-
Seychelles	4,968,989	4,968,989	-
Falkland Islands (Islas Malvinas)	4,176,978	-	4,176,978
Germany, Federal Republic of	3,868,698	3,707,497	161,201
Southern Pacific Islands	3,702,766	1,690	3,701,076

Source: Hawaii State Department of Business and Economic Development, International Services Branch, Hawaii's Foreign Trade 1987, A Statistical Digest, International Business Series No. 53 (July 1988), table 2. Compiled from U.S. Bureau of the Census tapes.

Table 713.-- IMPORTS AND EXPORTS THROUGH THE HONOLULU CUSTOMS DISTRICT, BY COMMODITY CLASSIFICATION: 1987

[See headnote to table 711]

Commodity	Imports for consumption	Exports of domestic mdse.
All commodities	1,558,625,780	392,820,689
Animal and vegetable products	94,195,329	44,177,795
Wood and paper; printed matter	25,791,308	10,151,877
Textile fibers and products	40,691,411	1,376,979
Chemicals and related products	363,278,114	50,850,059
Crude petroleum, fuel oils	326,864,454	40,033,443
Other chemicals and related products	36,413,660	10,816,616
Nonmetallic minerals and products	20,550,474	715,863
Metals and metal products	845,503,409	249,818,458
Integrated circuits	444,559,280	1,024,827
Motor vehicles	308,851,723	3,001,691
Aircraft and spacecraft	646,410	168,454,936
Other metals and metal products	91,445,996	77,337,004
Specified miscellaneous products	154,873,003	31,089,769
Special classification provisions	13,742,732	4,639,889

Source: Hawaii State Department of Business and Economic Development, International Services Branch, Hawaii's Foreign Trade 1987, A Statistical Digest (International Business Series No. 53, July 1988), tables 7, 10, 20, and 22.

Table 714.-- FOREIGN-TRADE ZONE NO. 9 OPERATIONS: 1968 TO 1988

[Years ended June 30 through 1976 and September 30 thereafter. Foreign-Trade Zone No. 9 began operation June 15, 1966]

Fiscal years	Firms using zone	User employment at zone 1/	Value of merchandise ($1,000)		Revenue (dollars)	Expenditures (dollars)
			In/out	Exports		
1968 ..	82	42	6,279	498	88,060	122,718
1969 ..	94	56	10,078	1,187	120,990	122,628
1970 ..	124	65	11,682	1,850	160,438	156,424
1971 ..	138	57	17,363	3,147	206,159	193,450
1972 ..	132	58	20,648	2,894	289,301	229,379
1973 ..	140	83	23,442	2,775	267,393	260,251
1974 ..	139	113	25,394	6,140	355,737	325,633
1975 ..	148	131	29,828	6,317	463,008	415,371
1976 ..	179	139	24,396	4,576	481,172	429,496
1977 ..	205	145	25,702	3,956	700,470	606,720
1978 ..	191	193	29,095	4,395	835,004	574,044
1979 ..	204	221	34,928	4,450	545,380	568,607
1980 ..	211	263	37,118	6,396	638,961	615,361
1981 ..	186	274	46,188	12,093	750,676	714,750
1982 ..	178	263	52,483	11,957	744,741	780,932
1983 ..	190	203	48,312	11,839	965,590	1,032,675
1984 ..	198	224	46,312	10,596	1,107,107	996,236
1985 ..	229	218	39,376	6,196	1,122,722	1,058,802
1986 ..	302	200	53,890	6,416	1,282,855	1,101,505
1987 ..	400	299	72,951	10,070	1,220,265	1,052,055
1988	386	216	57,241	12,026	1,247,060	1,118,977

1/ For firms occupying facilities on a continuing basis only.

Source: Hawaii State Department of Business and Economic Development, Foreign-Trade Zone No. 9, annual reports and records.

Table 715.-- FOREIGN-TRADE SUBZONE OPERATIONS: 1972 TO 1988

[Years ended June 30 through 1976 and September 30 thereafter. Foreign-Trade Subzone No. 9-A began operation April 7, 1972; 9-B, Jan. 30, 1986; 9-C, Aug. 1, 1985; 9-D, April 30, 1986]

Subzone and fiscal year	User employment at subzone 1/	Merchandise, in/out		Exports	
		Quantity (1,000 short tons)	Value ($1,000)	Quantity (1,000 short tons)	Value ($1,000)
No. 9-A:					
1972 ..	45	453.0	9,300	41.1	1,106
1973 ..	73	3,250.0	76,760	1,178.1	33,614
1974 ..	95	3,046.8	156,454	564.0	52,436
1975 ..	(NA)	3,794.6	340,996	707.1	72,003
1976 ..	159	5,755.7	534,023	815.2	80,719
1977 ..	156	6,349.6	608,815	893.2	83,134
1978 ..	139	6,837.5	705,711	1,178.5	117,247
1979 ..	149	6,507.8	862,559	1,070.1	149,646
1980 ..	161	6,408.9	1,471,841	1,184.5	295,528
1981 ..	182	6,188.2	1,728,457	1,396.3	406,084
1982 ..	203	6,781.3	1,758,180	1,952.9	531,437
1983 ..	203	6,944.5	1,491,063	2,047.6	461,298
1984 ..	205	7,405.6	1,348,745	1,995.5	363,698
1985 ..	212	7,680.5	1,450,466	2,075.3	402,568
1986 ..	210	7,717.5	922,289	1,560.0	198,368
1987 ..	213	8,107.9	860,963	1,825.0	196,172
1988	233	8,581.0	865,908	1,782.7	186,034
No. 9-B:					
1986 ..	6	(NA)	448	(NA)	220
1987 ..	7	(NA)	1,556	(NA)	778
1988 ..	17	(NA)	4,724	(NA)	2,372
No. 9-C:					
1986 ..	2,400	(NA)	300,844	(NA)	16,205
1987 ..	2,000	(NA)	267,336	(NA)	15,999
1988 ..	2,071	(NA)	273,652	(NA)	16,518
No. 9-D:					
1986 ..	1,000	(NA)	23,646	(NA)	124
1987 ..	1,250	(NA)	73,988	(NA)	1,756
1988 ..	1,250	(NA)	(NA)	(NA)	(NA)

NA Not available.

1/ For firms occupying facilities on a continuing basis only.

Source: Hawaii State Department of Business and Economic Development, Foreign-Trade Zone No. 9, annual reports and records.

Table 716.-- FOREIGN DIRECT INVESTMENT IN HAWAII: 1983 TO 1986

[Data for Hawaii nonbank affiliates of U.S. business enterprises owned 10 percent or more, directly or indirectly, by a foreign person]

Subject	1983	1984	1985	1986
Gross book value of property, plant, and equipment of affiliates (million dollars)	1,599	1,691	1,777	2,013
Employment, by country of ultimate beneficial owner	16,251	16,548	18,680	18,851
Canada	576	515	535	700
European countries	1,724	2,232	1,591	1,805
Japan	9,695	9,820	11,679	11,420
Latin America	736	807	820	2,077
Other countries	3,520	3,174	4,055	2,849
Land owned (1,000 acres)	102	51	50	52

Source: U.S. Department of Commerce, Bureau of Economic Analysis, "U.S. Affiliates of Foreign Companies: Operations in 1984," Survey of Current Business, October 1986, pp. 31-45; "U.S. Affiliates of Foreign Companies: Operations in 1985," Survey of Current Business, May 1987, pp. 36-51; and "U.S. Affiliates of Foreign Companies: Operations in 1986," Survey of Current Business, May 1988, pp. 59-75.

Table 717.-- EMPLOYMENT AND SHIPMENTS RELATED TO MANUFACTURED EXPORTS: 1983 AND 1984

Subject	1983	1984
Employment related to manufactured exports	4,700	5,400
Percent of civilian employment	1.0	1.2
Manufacturing industries	900	700
Direct export related	500	300
Supporting exports	400	400
Nonmanufacturing industries	3,800	4,700
Trade	3,000	4,000
Other	800	700
Value of export related manufacturers' shipments 1/	310.2	414.1
Percent of total manufacturers' shipments	9.1	12.1
Direct exports 1/	192.3	304.2
Supporting exports 1/	117.9	109.9

1/ Million dollars.

Source: U.S. Bureau of the Census, 1984 Annual Survey of Manufactures, Origin of Exports of Manufactured Products, M84(AS)-5 (August 1987), tables 2 and 3.

Table 718.-- JAPANESE OWNERSHIP OF HOTELS, BY ISLANDS: MARCH 1988

Subject	State total	Hawaii	Maui	Lanai	Molokai	Oahu	Kauai
Number of hotels	43	8	4	-	1	28	2
Number of units	19,276	2,384	2,338	-	292	13,453	809
Percent 1/	28.7	31.4	17.4	0	51.4	34.0	13.6

1/ Percent of all units, including condominium accommodations in rental pools for transient use.

Source: Hawaii Visitors Bureau, "List of Japanese Owned Hotels in Hawaii (March, 1988)," unpublished tables.

Table 719.-- AGRICULTURAL LANDHOLDINGS OF FOREIGN OWNERS: DECEMBER 31, 1987

Subject	Amount
Parcels owned by foreigners	46
Individuals	14
Organizations	32
Acres owned by foreigners	52,860
Percent of all privately owned agricultural land 1/	2.7
Individuals	543
Organizations	52,317
Value of foreign-owned agricultural land ($1,000):	
At time of acquisition	53,212
Adjusted current value	38,704

1/ The percent for Hawaii ranked third among the 50 States, exceeded only by Maine (9.5 percent) and Oregon (3.4), and well above the national percentage (1.0).

Source: U.S. Department of Agriculture, Economic Research Service, Foreign Ownership of U.S. Agricultural Land Through December 31, 1987 (Staff Report No. AGES 880314, April 1988), pp. 5, 8, and 11.

Table 720.-- FOREIGN INVESTMENTS IN HAWAII, TOTAL AND JAPANESE: ANNUALLY, PRE-1970 TO 1987

[In thousands of dollars. Data are estimates based on incomplete reporting, and do not include undisclosed amounts]

Year	Total foreign investments	Investments by Japanese
Total completed	4,684,423	3,733,197
1970 and earlier years	48,770	44,970
1971-1975	452,069	327,869
1976	120,740	55,940
1977	32,200	17,800
1978	44,500	13,500
1979	297,470	165,250
1980	124,485	80,100
1981	108,775	70,800
1982	629,880	489,880
1983	141,176	134,900
1984	202,600	112,000
1985	139,724	120,654
1986	1,130,809	1,087,309
1987	1,211,225	1,012,225
Future investments	1,384,500	1,365,500

Source follows table 722.

Table 721.-- FOREIGN INVESTMENTS IN HAWAII, BY COUNTRY OF INVESTOR: PRE-1970 TO 1987

[In thousands of dollars. Data are estimates based on incomplete reporting, and do not include undisclosed amounts]

Country of investor	Pre-1970 through 1987	1985	1986	1987
All countries	4,684,423	139,724	1,130,809	1,211,225
Australia	167,800	2,100	34,700	57,900
Bermuda	500	(NA)	-	-
British West Indies	575	-	-	
Canada	157,370	6,800	300	2,700
Cayman Islands	8,500	-	8,500	(NA)
France	15,900	-	-	-
Hong Kong	231,895	3,070	-	(NA)
Indonesia	82,000	-	-	82,000
Japan	3,733,197	120,654	1,087,309	1,012,225
Korea, Republic of	11,550	2,100	-	(NA)
Netherlands	19,600	-	-	3,400
Netherlands Antilles	17,735	-	-	-
New Zealand	28,000	5,000	-	23,000
Singapore	(NA)	(NA)	-	-
Switzerland	(NA)	-	-	(NA)
Taiwan	13,500	-	(NA)	-
United Arab Emirates	(NA)	-	-	
United Kingdom	193,801	-	-	30,000
Vanuatu	2,500	-	-	-

NA Not available.
Source follows table 722.

Table 722.-- FOREIGN INVESTMENTS IN HAWAII, BY TYPE OF INVESTMENT: PRE-1970 TO 1987

[In thousands of dollars. Data are estimates based on incomplete reporting, and do not include undisclosed amounts]

Type of investment	Pre-1970 through 1987		All countries		
	All countries	Japanese investments	1985	1986	1987
All types	4,684,423	3,733,197	139,724	1,130,809	1,211,225
Agriculture............	32,700	1,800	-	30,000	1,600
Banks	25,519	13,719	-		-
Condominiums	591,250	352,850	6,800	2,850	90,800
Golf courses	109,300	109,300	-	41,000	-
Hotels	2,255,770	2,130,320	77,650	894,000	687,870
Manufacturing	45,205	33,705	(NA)	2,800	24,375
Other real estate	1,285,860	939,405	50,050	132,495	357,410
Restaurants	46,045	42,320	(NA)	24,950	11,770
Retailing, wholesaling	65,679	60,404	3,000	2,714	(NA)
Science, education	84,401	7,500	-	-	33,400
Miscellaneous	142,694	41,874	2,224	(NA)	4,000

NA Not available.

Source: Hawaii State Department of Business and Economic Development, International Services Branch, *A Listing of Foreign Investments in Hawaii* (International Business Series No. 52, December 31, 1987), pp. 65-67, as corrected.

Table 723.-- JAPANESE INVESTMENT IN HAWAII REAL ESTATE, BY LOCATION AND PROPERTY USE: JANUARY 1987 TO MARCH 1988

[Million dollars]

Location	Amount	Property use	Amount
State total 1/	890	Improved residential	288
		Apartment, hotel	266
Oahu	742	Commercial	131
Honolulu	668	Industrial	20
Waikiki	293	Agricultural	38
Waialae, Kahala	135	Conservation	28
Other	241	Resort/hotel	114
Rest of island	73	Unimproved residential	3
Other islands	148	Unknown	3

1/ Other estimates of Japanese investment have been made by Kenneth Leventhal and Company ($3.3 billion in 1987; see *Honolulu Advertiser*, April 25, 1988, p. A-7), the *Honolulu Advertiser* ($1.4 billion in 1987 and $1.0 billion in the first half of 1988; see issue of June 27, 1988, pp. A-1, A-4), and DBED ($1.01 billion in 1987; see present volume, table 720).

Source: University of Hawaii, Hawaii Real Estate Research and Education Center, *A Preliminary Statistical Evaluation of Japanese Investment in Hawaii Real Estate: January 1987 to March 1988* (June 8, 1988).

Section 25

COMPARATIVE NATIONAL STATISTICS

This section presents statistics for the United States as a whole, the corresponding figures for Hawaii, and the rank of Hawaii among the 50 states and District of Columbia. The 12 tables in this section contain 365 series, thought to include the most significant or frequently requested types of data for which national comparisons are available. Virtually all of the major subject-matter areas covered in the first 24 sections of the Data Book are represented. The comparisons include totals, averages, medians, percentages, and rates.

Ranked against other jurisdictions, Hawaii was first in 23 comparisons, second in 14, last in 7, and second last in 16. Hawaii ranked 39th in population, first in life expectancy, 11th in public school pupil-teacher ratio, 16th in crime rate, 47th in land area, 14th in percent of land owned by the Federal government, 27th in visitor expenditures, 47th in votes cast as a percent of voting-age population, 14th in State and local government expenditures per capita, 27th in defense spending, 25th in public aid recipients relative to population, 11th in female labor force participation rate, 15th in per capita personal income, 6th in family living costs (based on data for 100 metropolitan areas), 37th in bank deposits, 28th in commercial television stations, 44th in energy consumption per capita, 50th in highway mileage, first in volume of crop marketings for pineapple, macadamia nuts, and bananas, 17th in value of fish catch, 49th in percent of housing units owner occupied, 45th in value added by manufacture, 16th in retail sales per capita, 9th in hotel receipts, and 8th in percent of business establishments foreign owned.

High ranks do not necessarily mean favorable scores, nor low ranks unfavorable scores. Hawaii was first (highest) in expectation of life at birth and 50th (second lowest) in crude death rate, for example, but both were highly desirable positions.

When Hawaii shared the same rank with other jurisdictions, the next lower rank (or ranks) was omitted. Although most comparisons were for 51 areas (50 states and the District of Columbia), some ranked Honolulu against other large metropolitan areas, and a few were based on other groupings. Variations in comparison groups are noted in the stubs.

Some of the values shown for Hawaii in this section differ from the corresponding figures given elsewhere in the Data Book, because of differences in sources or subsequent revisions in data.

This section was taken from other tables in this edition or their underlying sources, Statistical Abstract of the United States: 1988, pp. xvii-xxvi, and State and Metropolitan Area Data Book, 1986, table 1. Historical data on state rankings are not readily available for most series.

Table 724.-- POPULATION, VITAL STATISTICS, AND HEALTH

Subject	United States	Hawaii	
		Number	Rank
Resident population, 1987 (1,000)	243,400	1,083	39
Percent change in resident population, 1980-1987	7.4	12.2	12
Resident population per square mile, 1987	69	168	13
Percent of population in metro areas, 1986	76.6	76.9	18
Males per 100 females, 1987	94.9	104.0	3
Resident population, percent 5 to 17 years, 1987	18.6	18.2	35
Resident population, percent 65 years and over, 1987	12.3	10.1	44
Median age of population, 1987 (years)	32.1	31.5	35
Resident population, by selected races, 1980:			
White, percent of population	83.1	33.0	50
Black, percent of population	11.7	1.8	38
Asian and Pacific Islander, percent of population	4.5	64.9	1
Pct. married of persons 15 years old and over, 1980:			
Male	60.1	55.2	50
Female	54.8	56.8	22
Households, 1987 (1,000)	90,031	345	43
Persons per household, 1987	2.64	3.02	2
One-person households, percent of all households, 1980	22.7	17.1	51
Births per 1,000 population, 1985	15.8	17.4	10
Percent of births to teenage mothers, 1985	12.7	9.8	39
Percent of births to unmarried women, 1985	22.0	19.9	23
Deaths per 1,000 population, 1985	8.7	5.5	49
Abortions per 1,000 women 15-44, 1985	28.0	43.7	3
Infant mortality per 1,000 births, 1985	10.6	8.8	45
Deaths per 100,000 population, by cause, 1985:			
Diseases of the heart	323.0	177.8	50
Malignant neoplasms	193.3	137.4	46
Cerebrovascular diseases	64.1	41.3	45
Accidents and adverse effects	39.1	26.6	51
Average life expectancy, 1979-1981 (years)	73.88	77.02	1
Marriages per 1,000 population, 1986	10.0	15.3	3
Divorces per 1,000 population, 1986	4.8	4.3	31
Per capita personal health care expend., 1982 (dollars)	1,220	1,228	17
Average daily hospital room charge, 1987 (dollars)	244	267	7
Hospital beds per 100,000 population, 1985	548	390	47
Hospital occupancy rate, 1985	69.5	76.7	7
Physicians per 100,000 population, 1985	204	215	10
Dentists per 100,000 population, 1984	57	65	12

Table 725.-- EDUCATION AND LAW ENFORCEMENT

Subject	United States	Hawaii	
		Number	Rank
Elementary and secondary schools:			
Public, 1984-1985	84,007	230	49
Private, 1980-1981	20,764	114	34
Elementary and secondary school enrollment (1,000):			
Public, Fall 1985	39,513	164	40
Private, 1980-1981	4,962	37	31
Elementary and secondary school teachers (1,000):			
Public, 1986-1987	2,233	8.4	43
Private, 1980-1981	277.4	2.1	31
Public school enrollment, percent of persons 5-17 years old, Fall 1985	87.9	82.8	45
Percent change in public school enrollment, 1980-1985	-3.6	-0.6	16
Pupil-teacher ratio in public schools, 1983-1984	18.45	20.06	11
Public school expenditures, 1986-1987 (mil. dol.)	160,479	705	41
Per student in daily attendance (dollars)	3,970	4,372	13
Per capita (dollars)	666	664	24
Scholastic Aptitude Test scores, 50 States, 1985-1986:			
Verbal	431	403	47
Math	475	477	33
High school graduates as percent of persons 25 years and older, 1980	66.5	73.8	9
Public high school graduates, 1987 (1,000)	2,377.2	9.9	43
Average annual public teacher's salary, 1987 (dollars)	26,551	26,815	19
Higher education enrollment, Fall 1985 (1,000)	12,247	50	42
College graduates as percent of persons 25 and older, 1980	16.3	20.3	5
Degrees conferred, 1983-1984:			
Bachelor's	974,309	3,370	46
Master's	284,263	1,008	41
Doctorate	33,209	101	40
Average monthly earnings of full-time instructional personnel of public institutions of higher education, October 1985 (dollars)	2,990	2,777	30
Crime rate per 100,000 population, 1986	5,480	5,671	16
Violent crime rates	617.3	245.2	42
Property crimes	4,863	5,426	14
Marijuana harvest, 1987 (billion dollars)	33	1.33	6
Federal and State prisoners per 100,000 population, 1986	226.8	205.3	23
Expenditures per capita for criminal justice activities, 1985 (dollars)	181	200	12
Population per lawyer, 1985	360	373	38

Table 726.-- GEOGRAPHY, ENVIRONMENT, LAND USE, AND LAND OWNERSHIP

Subject	United States	Hawaii	
		Number	Rank
Year admitted to statehood, 50 States	(X)	1959	50
General coastline (statute miles)	12,383	750	4
Land area, 1980 (1,000 square miles)	3,539.3	6.4	47
Highest point (feet)	20,320	13,796	6
Approximate mean elevation (feet)	2,500	3,030	10
Water withdrawal per capita, 1985 (gallons per day), fresh	1,400	1,100	31
Ground water withdrawal, percent of daily total, 1980	19.9	32.0	11
Environmental quality score, 1988	1/ 29	38	10
Air pollutant emissions, 1982 (1,000 tons):			
Carbon monoxide	88,440	342	43
Nitrogen oxides	22,929	63	47
Particulates	40,661	55	48
Normal daily mean temperature, 69 cities including Honolulu, 1951-1980 (degrees Fahrenheit):			
January	32.5	72.6	1
July	75.2	80.1	15
Annual average	54.5	77.0	1
Temperature of record, 69 cities including Honolulu, 1951-1985 (degrees Fahrenheit):			
Highest temperature	105	94	68
Lowest temperature	-13	53	69
Normal annual precipitation, 69 cities including Honolulu, 1951-1980 (inches)	34.72	23.47	55
Average number of days with precipitation of .01 inch or more, 69 cities including Honolulu, 1951-1985	113	100	52
Average percentage of possible sunshine, 69 cities including Honolulu, 1951-1985	59	67	9
Average wind speed, 69 cities including Honolulu, 1951-1985 (miles per hour)	9.4	11.6	7
Land owned by federal government, percent of total land area, 1986	32.0	16.7	14
Urban land acreage per capita, 1980	0.28	0.21	46

X Not applicable.

1/ Median State.

Table 727.-- RECREATION, TOURISM, AND ELECTIONS

Subject	United States	Hawaii	
		Number	Rank
Foreign visitor arrivals, 1983 (1,000)	21,707	1,423	5
Visitor expenditures, 1984 (million dollars)	411,350	4,620	27
Foreign visitor expenditures, 1983 (milllion dollars)	13,772	1,172	4
Economic impact of foreign visitors, 1983:			
Payroll (million dollars)	3,066	305	4
Employment	312,800	28,800	4
Tax revenues (million dollars)	1,647	127	4
Domestic travel expenditures, 1985 (million dollars)	242,443	2,781	17
Economic impact of domestic visitors, 1984:			
Business receipts (million dollars)	215,978	2,445	27
Payroll (million dollars)	47,195	605	24
Employment (1,000)	4,493.0	52.6	28
Tax revenues (million dollars)	27,450	252	28
State travel budgets, 50 States, FY 1986-1987 ($1,000)	234,170	8,464	8
National Park System acreage, FY 1984 (1,000 acres)	74,898	245	17
State parks and recreation acreage, 50 States, FY 1986 (1,000 acres)	13,726	25	46
Paid license holders, FY 1987 50 States (1,000):			
Fishing	30,350	8.4	50
Hunting	15,819	12.1	50
Passports issued, 1983 (1,000)	4,121.5	37.6	27
Per capita State appropriations for State arts agencies, 1987 (dollars)	0.92	2.17	5
Number of local governments, 1987	83,166	18	50
Voting-age population, 1988 (1,000)	182,628	824	39
Popular vote cast for President, 1984 (1,000)	92,653	336	43
Vote cast, percent of voting-age population	53.1	44.3	47
Percent voting for Republican party	58.8	55.1	41
Vote cast for U.S. Representatives, 1986 (1,000)	59,619	331	40
Percent voting for Democratic party	54.6	56.4	25

Table 728.-- GOVERNMENT FINANCES AND EMPLOYMENT AND NATIONAL DEFENSE

[Fiscal year data unless otherwise specified]

Subject	United States	Hawaii	
		Number	Rank
Federal government:			
Per capita expenditures, 1987 (dollars)	3,433	4,394	8
Per capita grants to State and local government, 1987 (dollars)	437	424	33
Civilian employment per 10,000 population, 1986	118.7	254.2	4
State and local government:			
Per capita general revenue, 1986 (dollars)	2,661	2,881	12
Per capita taxes, 1986 (dollars)	1,547	1,785	8
Per capita debt outstanding, 1986 (dollars)	2,657	3,115	17
Per capita general expenditure, 1986 (dollars)	2,516	2,702	14
Per capita capital outlay, 1986 (dollars)	312	441	8
Employees per 10,000 population, 1985	442	453	23
Average employee earnings, October 1985 (dollars):			
State employees (50 States)	1,935	1,782	28
Local employees (50 States and D.C.)	1,865	1,920	16
Per capita adjusted gross income, 1985 (dollars)	9,589	9,482	20
Per capita Federal income tax, 1985 (dollars)	1,410	1,240	28
Residential effective property tax rate per $100, 1985 (Honolulu and 50 other large cities)	1/ 1.49	0.60	51
Per capita revenues of State government, 1986 (dollars):			
General sales tax	311	703	1
Individual income tax	281	440	7
State general sales tax rate, Sept. 1, 1985 (percent)	(NA)	4	27
Federal funds for defense, 1986 (billion dollars)	214.8	2.486	27
Percent of all Federal outlays	26.8	53.5	1
Department of Defense employment, 1986:			
Civilian employees (1,000)	963.9	20.8	16
Percent of all Federal employees	33.8	77.8	1
Military personnel (1,000)	1,427.6	44.2	8
Department of Defense contract awards, 1986 (mil. dol.)	136,026	563	36
Veterans, September 30, 1988 (1,000)	27,155	101	44

NA Not available.

1/ Median city of 51 surveyed.

Table 729.-- SOCIAL INSURANCE, HUMAN SERVICES, LABOR FORCE, EMPLOYMENT, AND EARNINGS

Subject	United States	Hawaii	
		Number	Rank
Payments for Aid to Families with Dependent Children, 1985 (million dollars)	15,126	77	32
Payments for Supplemental Security Income, 1986 (million dollars)	11,740	34	39
Public aid recipients, percent of population, 1986	6.2	5.4	25
Food stamp recipients per 1,000 population, 1986	78.9	83.8	15
Social Security recipients per 1,000 population, 1986	152	126	45
Medicare payments, 1986 (million dollar)	75,734	210	45
Average weekly unemployment benefits, 1986 (dollar)	134	145	18
Quality of life score, 300 metropolitan areas including Honolulu, 1988	(NA)	(NA)	43
Civilian labor force, 1986 (1,000)	117,834	488	42
Civilian employment, 1986 (1,000)	109,597	465	42
Civilian employment, pct. of civilian noninstitutional population 16 years and over, 1986	60.7	62.9	21
Unemployed persons, 1986 (1,000)	8,237	24	41
Unemployment rate, pct. of civilian labor force, 1987	6.2	3.8	46
Male unemployment rate, 1986	6.9	4.9	39
Female unemployment rate, 1986	7.1	4.8	46
Percent of persons 16 and over in labor force:			
Male	76.2	75.3	33
Female	56.0	60.4	11
Nonagricultural employment, 1985 (1,000)	97,614	423	43
Percent manufacturing	19.8	5.2	47
Percent services	22.5	26.0	5
Percent government	16.8	22.0	10
Percent change, 1980-1985	8.0	4.5	30
Percent in managerial and professional specialty occupations, 1987	(NA)	25.1	19
Average annual pay, workers covered by State unemployment compensation, 1986 (dollars)	19,966	18,101	30
Ave. annual wages, selected industries, 1983 (dol.):			
Construction	20,492	25,443	2
Manufacturing	21,469	16,632	47
Retail trade	10,007	9,791	21
Services	15,351	14,137	25
Average hours of work, 1987	(NA)	37.6	50
Labor union membership, 1982 (1,000)	19,571	126	32
Percent of nonagriculture employed	21.9	31.5	5

NA Not available.

Table 730.-- INCOME, EXPENDITURES, WEALTH, AND PRICES

Subject	United States	Hawaii Number	Hawaii Rank
Gross state product, 1986 (billion dollars)	4,192	19.3	41
Personal income, 1987 (billion dollars)	3,768	17.0	39
Percent increase, 1977-1987	135.1	135.4	22
Per capita personal income, 1987 (dollars)	15,481	15,679	15
Percent increase, 1977-1987	112.2	99.1	33
Median income, 1979 (dollars):			
Households	16,841	20,473	2
Families	19,917	22,750	5
Unrelated individuals	6,695	7,097	12
Median family income, fiscal 1987 (dollars)	30,400	32,900	8
Percent below poverty level, 1979:			
Persons	12.4	9.9	40
Families	9.6	7.8	33
Related children	16.0	13.0	35
Household finances, 1982-83, 26 MSAs incl. Honolulu:			
Average income before taxes (dollars)	22,702	27,937	5
Average expenditures (dollars)	18,892	22,247	6
Top wealthholders, 1982 (50 States):			
Gross assets over $350,000	4,478.8	20.3	39
Total assets (billion dollars)	3,218	14.767	39
Net worth over $1,000,000 (1,000)	475.5	1.4	43
Net worth (billion dollars)	1,200	4.813	36
Consumer price index for all urban consumers, MSAs including Honolulu, 1987 annual average:			
1967=100 (26 MSAs)	340.4	316.4	25
1982-1984=100 (27 MSAs)	113.6	114.9	9
Percent increase since 1986 (27 MSAs)	3.6	5.0	2
Four-person family budgets, Autumn 1981 (dollars), 25 MSAs including Honolulu:			
Lower budget	15,323	20,319	2
Intermediate budget	25,407	31,893	1
Higher budget	38,060	50,317	1
Four-person higher-income family budget, 1986 (percent of U.S. average), 100 MSAs including Honolulu	100.0	114.5	6
Retail food prices, June 1987 (percent of 17-city average), 17 cities including Honolulu	100.0	126.6	1

Table 731.-- BANKING, INSURANCE, BUSINESS ENTERPRISE, AND COMMUNICATIONS

Subject	United States	Hawaii	
		Number	Rank
Total deposits of insured banks, insured savings institutions, mutual savings banks, and credit unions, 1985 (billion dollars)	2,905.3	13.2	37
Commercial bank deposits, Dec. 31, 1986 (billion dol.)	1,955.8	9.3	38
Per capita deposits (dollars)	8,113	8,768	12
Savings and loan deposits, Dec. 31, 1986 (billion dol.)	887.3	2.7	40
Equity capital in commercial banks per capita, 50 States, 1983 ($1,000)	606.4	483.0	26
Bank loans-to-equity ratios, 50 States, June 1986	(NA)	5.9	11
Venture capital funds per capita, 50 States, 1985 (dol.)	39.2	1.4	33
Dividends, int., and rent income per capita, 1985 (dol.)	2,347	2,050	33
Shareowners of public corporations, mid-1985 (1,000)	47,040	256	36
Percent of household population	20.1	24.8	7
Life insurance in force per family, 1986 (dollars)	69,100	83,500	5
Percent of population enrolled in HMO's, 1986	9.8	18.4	5
Percent without health insurance, 1985 (48 states)	17.4	11.8	44
Private nonfarm establishments, 1984 (1,000)	5,517.7	25.7	40
Percent with 100 employees or more	2.0	1.6	34
Percent with fewer than ten employees	76.2	75.0	46
New business incorporations, 1986 (1,000)	702.1	2.8	40
Fast-growth companies, percent of businesses, 50 States, 1987	(NA)	2.88	11
Presence of Fortune 1000 corporate headquarters per million residents, 50 States, 1985	(NA)	3.80	16
Women-owned businesses, percent of female labor force, 50 States, 1982	(NA)	9.8	15
Business failures, 1986	61,232	283	37
Inc.'s "Report on the States" ranking of State economies, 50 States, 1988	(NA)	62.54	17
The Corp. for Enterprise Development's "Development Report Card," 50 States, 1988 (grades of A through F):			
Performance Index	(NA)	B	12
Business Vitality Index	(NA)	C	35
Capacity Index	(NA)	B	15
Policy Index	(NA)	D	39
Telephone access lines, December 31, 1986 (1,000)	122,203	478	43
Percent of housing units with telephones, 1980	93.0	95.1	15
Commercial radio stations, January 10, 1985	8,354	39	47
Commercial television stations, January 10, 1985	887	13	28
Cable TV households, pct. of TV households, July 1985	45.1	65.1	2
Daily newspaper circulation per capita, 1986	0.26	0.21	34

NA Not available.

Table 732.-- ENERGY, SCIENCE, AND TRANSPORTATION

Subject	United States	Hawaii	
		Number	Rank
Energy consumption per capita, 1985 (million Btu.)	310	221	44
Energy expenditures per capita, 1985 (dollars)	1,847	1,833	21
Electricity consumed per residential customer, 1983 (kilowatt-hours)	8,740	6,571	42
Average price of residential electricity for 500 kwh, 1986 (28 MSAs, including Honolulu)	40.88	42.65	11
Average price of utility (piped) gas for 100 therms, 1986 (28 MSAs, including Honolulu)	58.70	129.81	1
Average sales price of motor gasoline per gallon, 1987 (cents), 48 States including Hawaii	64.0	83.6	2
Federal obligations for research and development per capita 1985 (dollars)	(NA)	55	34
Research and development expenditures in universities per capita, 50 States, 1984 (dollars)	31.3	43.6	9
State and local government research and development in universities per capita, 50 States, 1984 (dollars)	2.5	14.4	2
Industry research and development in universities per capita, 50 States, 1984 (dollars)	1.4	0.3	49
Doctoral degrees in science and engineering per 100,000 population, 50 States, 1985	(NA)	101	10
Patents issued to U.S. residents, 1963-1985 (1,000)	1,009.8	0.7	49
Highway and street mileage, December 31, 1986 (1,000)	3,880	4.0	50
Licensed drivers per 1,000 driving-age population, 1986	861	758	50
Motor vehicle registrations per 1,000 population, 1986	732	633	46
Vehicle-miles of travel, 1986 (billions)	1,838	7.0	43
Average highway speed, FY 1986 (m.p.h.), 50 States	56.4	55.1	44
Accident deaths per 100,000 population, 1983	19.1	14.3	44
Commuting to work, 1980:			
Percent of workers using public transportation	6.4	8.3	7
Percent of workers using private transportation	84.1	78.5	45
Mean travel time to work (minutes)	21.6	21.5	13
Aircraft facilities, Dec. 31, 1986	16,516	51	48
Airports	12,739	33	48
Air operations (takeoffs and landings), 1986 (1,000)	59,754	882	23
Aircraft operations at Honolulu International Airport, 1986 (1,000), all FAA-oper. airports	(NA)	368	21
Enplaned passengers at Honolulu International Airport, 1986 (1,000), all FAA-oper. airports	(NA)	7,352	17
General aviation, active aircraft, 1986 (1,000)	220.0	0.4	50
Active pilots, Dec. 31, 1986 (1,000)	690.9	3.3	44
Numbered vessels (State-registered), 1987 (1,000)	9,964	14.1	50
Boating accidents, 1987	6,746	62	31

NA Not available.

Table 733.-- AGRICULTURE, FORESTS, FISHERIES, AND MINING

[Ranking among 50 states]

Subject	United States	Hawaii	
		Number	Rank
Farm population, percent of total population, 1980	2.48	0.47	45
Farms, 1987 (1,000)	2,173	4	44
Land in farms, 1987 (million acres)	1,002	2	40
Acreage per farm, 1987 (acres)	461	464	17
Acreage, individual or family farms, pct. of total, 1982	65.1	24.6	49
Value of land and buildings, 1982 (million dollars)	774,158	3,575	39
Average value per farm ($1,000)	345.9	778.5	3
Average value per acre (dollars)	784	1,826	9
Value of products sold per farm, 1982 ($1,000)	58.9	121.6	3
Farm debt-to-asset ratio, 1986 (percent)	21.1	8.9	45
Net farm income-to-debt ratio, 1986 (percent)	22.5	55.2	7
Acreage in harvested crop, 1982 (1,000 acres)	326,306	156	48
Vegetables	3,330.6	4.7	39
Sugarcane, for sugar	713.1	89.7	3
Pineapple	23.1	23.1	1
Macadamia nuts	15.7	15.5	1
Bananas	1.1	1.1	1
Value of farm marketings, 1986 (million dollars)	135,185	575	38
Crops	63,612	491	33
Livestock and products	71,573	84	47
Volume of crop marketings, 1982:			
Sugarcane, for sugar (1,000 tons)	27,902	8,950	2
Pineapple, harvested (tons)	627	627	1
Macadamia nuts (1,000 pounds)	35,648	35,595	1
Taro (1,000 pounds)	6,386	3,360	1
Coffee, parchment (1,000 pounds)	1,806	1,806	1
Value of sales of livestock, poultry, and their products, 1982 (million dollars)	69,644	103	47
Cattle and calves	31,635	45	41
Dairy products	16,320	24	45
Poultry and poultry products	9,797	22	39
Hogs and pigs	9,868	9	36
Forest land, 1977 (1,000 acres)	736,558	1,986	41
Commercial timberland, 1977 (1,000 acres)	482,486	948	45
Commercial fish catch, 1985 (million pounds)	6,258	17	19
Value of fish catch, 1985 (million dollars)	2,326	22	17
Mineral (nonfuel) production value, 1985 (million dol.)	23,232	53	44
Value added in mining 1982 (million dollars)	188,056	10	47
Mineral industry employees, 1982 (1,000)	1,114.0	0.2	49

Table 734.-- CONSTRUCTION, HOUSING, AND MANUFACTURES

Subject	United States	Hawaii	
		Number	Rank
Private housing units authorized by building permits, 1986 (1,000)	1,769.4	7.2	39
Valuation of units authorized (million dollars)	98,005	465	36
Value of construction contracts, 1986 (billion dollars)	243.3	1.1	40
Construction industry establishments, 1982 (1,000)	1,389.3	4.3	49
Construction business receipts, 1982 (mil. dol.)	365,421	2,032	37
Construction industry employees, 1982 (1,000)	4,275.1	18.7	41
Average payroll per employee (dollars)	18,401	21,949	5
Existing home sales, 1986 (1,000)	3,897	10.0	48
Median purchase price of existing 1-family houses, 1986 (dollars) 32 MSAs, including Honolulu	(NA)	161.6	2
Housing units, 1980 (1,000)	88,411	334	43
Year-round housing units, 1980 (1,000)	86,693	332	43
One unit at address (percent)	66.0	51.7	49
Five or more units at address	17.9	38.1	2
Median rooms per unit	5.1	4.4	50
Percent vacant	7.3	11.5	3
Occupied year-round housing units, 1980 (1,000)	80,390	294	43
With 1.01 or more persons per room (percent)	4.5	15.3	1
Percent owner-occupied units	64.4	51.7	49
Condominium housing, 1980 (1,000)	2,253	74	6
Percent of total housing units	2.5	22.2	1
Median value of owner-occupied condo units ($1,000)	59.1	99.0	1
Median value of owner-occupied units, 1980 ($1,000)	47.2	118.1	1
Median monthly homeowner costs, 1980 (dollars)	365	463	2
Median monthly rent of renter-occupied units, 1980 (dollars)	243	311	2
Air-conditioning in homes, percent of year-round housing units, 1980	55.0	18.1	47
Manufacturing establishments, 1982	358,061	966	44
Value of manufacturing shipments, 1985 (billion dollars)	2,279.1	3.5	46
Value added by manufacture, 1985 (billion dollars)	999.3	1.2	45
Value added by manufacture, 1982 (billion dollars)	824.1	1.1	44
Average per establishment ($1,000)	2,302	1,158	46
Average per employee (dollars)	43,161	47,441	9
Manufacturers' inventories, end of 1982 (bil. dol.)	306.1	0.4	45
New capital investment, manufacturing, 1983 (mil. dol.)	61,924	61	48
Average per production worker (dollars)	5,081	4,067	39
Manufacturing employees, 1985 (1,000)	18,788	23	45
Production workers	12,174	16	45
Ave. payroll per manufacturing employee, 1982 (dollars)	19,882	15,271	47
Average per production worker	16,514	13,594	43

Table 735.-- DOMESTIC TRADE, SERVICES, AND FOREIGN AND INTERSTATE COMMERCE

Subject	United States	Hawaii	
		Number	Rank
Retail sales, 1986 (billion dollars)	1,476.2	6.8	41
Sales per capita (dollars)	6,123	6,430	16
Retail trade establishments, 1982 (1,000)	1,923.2	8.9	42
Retail sales, selected businesses, 1986 (bil. dol.):			
Food stores	302.3	1.3	41
General merchandise stores	171.0	0.8	40
Automotive dealers	337.5	1.0	45
Eating and drinking places	144.7	1.2	32
Gasoline service stations	91.9	0.4	44
Apparel and accessories stores	77.2	0.6	32
Restaurant Business' "Restaurant Activity Index," 1986	100	189	2
Wholesale trade establishments, 1982 (1,000)	415.8	1.7	42
Service establishments, 1982 (1,000)	1,261.7	6.1	40
Service receipts, 1982 (billion dollars)	427.0	2.7	34
Receipts per service establishment ($1,000)	338.4	434.3	4
Receipts of service ests., selected businesses, 1982:			
Business services (million dollars)	106,866	314	38
Health services (million dollars)	95,610	420	38
Legal services (million dollars)	34,325	173	34
Hotels, motels, and other lodging places (mil. dol.)	33,215	973	9
Automotive repair, services, and garages (mil. dol.)	30,695	249	32
Hotel occupancy rate (percent), 1987 1/	64.9	81.1	1
Hotel daily room rate (dollars), 1987 1/	66.49	80.09	2
Motion picture industry, ests. with payroll, 1982:			
Production, distribution, and service ests.	7,905	15	34
Receipts (million dollars)	10,117	4	40
Theaters	9,344	34	47
Exports, 1987 (billion dollars)	191.1	0.15	47
General imports, 1987 (billion dollars)	355.8	0.80	38
Foreign-owned business establishments, 1982	48,074	276	34
Percent of total establishments	1.04	1.27	8
Foreign direct investment (nonbank affiliates), inc. U.S. terr. and poss., and offshore sites, 1986:			
Gross book value (billion dollars)	317.6	2.0	37
Employment (1,000)	2,964	19	33
Japanese owned	216	11	5
Land owned (1,000 acres)	14,951	52	38
Export-related manufactures shipment value, 1984 (billion dollars)	268.3	0.4	44
Export-related as percent of total shipments	11.9	12.1	21
Foreign-owned agricultural land as percent of all private agricultural land, 1987	1.0	2.7	3

1/ For 27 regions (States, groups of States, or parts of States).

BIBLIOGRAPHY

This volume is the 22nd in a series published by the Hawaii State Department of Business and Economic Development and its predecessor agencies. The first was *Statistical Abstract of Hawaii, 1962*, issued by the Department of Planning and Research in 1962. After a four-year hiatus, updated versions titled *The State of Hawaii Data Book* were published by the Department of Planning and Economic Development in 1967, 1968, and annually beginning in 1970. The 1987 edition is the first one issued under the new name of the department. All of the volumes issued before 1984 are now out of print, but copies can be consulted in the DBED Library, Hawaii State Library, University of Hawaii and community college libraries, and other collections throughout the State.

Additional information regarding specific statistical sources can be found in the introductory statements to each section of the *Data Book*, in footnotes and source references to the various tables, and in the underlying reports.

Although most of the series in the *Data Book* are shown only for recent years, earlier figures can usually be found in *Historical Statistics of Hawaii*, by Robert C. Schmitt. This book, published by the University Press of Hawaii in 1977, contains 711 pages of narrative and tables on the development of statistics in Hawaii since the 18th century.

Privately published works of general statistical reference include *Hawaii Facts and Figures 1988*, sold by the Chamber of Commerce of Hawaii, and *All About Business in Hawaii 1988*, published by Crossroads Press, Inc.

Two of the four counties have produced statistical abstracts. In 1988, the Kauai Economic Development Board issued *1987 Statistical Abstract of the Kauai Economy*, prepared by the Center for Business and Economic Development, University of Hawaii at Hilo. The Hawaii County Department of Research and Development has published *County of Hawaii Data Book 1980*, now out of print.

Persons interested in data for other States or the nation as a whole should consult the *Statistical Abstract of the United States* and its companion volumes, *the State and Metropolitan Area Data Book* and *County and City Data Book*. The *Abstract* is an annual publication of the U.S. Bureau of the Census, initiated in 1878. The current edition is the 108th, dated 1988; copies are available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D. C. 20402. The *State and Metropolitan Area Data Book, 1986* and *County and City Data Book, 1983* are sold by the same agency.

Table A.-- PRINTING HISTORY OF THE STATE OF HAWAII DATA BOOK:
1962 TO 1987

Edition	Number of pages	Number of tables	Price (dollars)		Printing costs (dollars)	Number of copies printed
			Hawaii	Outside State		
1962 1/	128	243	1.00	1.00	(NA)	(NA)
1967	66	95	(NA)	(NA)	1,969.45	3,000
1968	69	99	1.00	1.00	2,969.20	3,000
1970	136	135	1.00	1.00	2,470.92	2,030
1971	159	152	2.00	2.00	4,149.60	2,000
1972 2/	227	210	4.00	5.00	6,245.00	3,000
1973	290	262	4.00	5.00	6,309.00	1,500
1974	306	292	4.00	5.00	9,330.00	2,000
1975	302	309	4.00	5.00	10,222.95	2,000
1976	312	335	4.00	5.00	9,901.13	2,000
1977	339	374	4.00	5.00	11,990.00	2,000
1978	379	425	4.00	5.00	8,900.00	2,000
1979	447	407	4.00	5.00	10,744.00	2,500
1980	545	496	5.00	10.00	12,335.00	2,500
1981	603	563	5.00	10.00	14,910.00	3,000
1982	596	566	5.00	10.00	15,633.00	3,000
1983	663	622	5.00	10.00	15,875.00	2,500
1984	762	724	5.00	15.00	32,003.00	3,000
1985	662	680	5.00	15.00	19,995.00	3,000
1986	705	721	5.00	15.00	19,980.00	3,000
1987	722	746	5.00	15.00	21,981.00	3,000

NA Not available.

1/ The 1962 edition was titled *Statistical Abstract of Hawaii, 1962*. In addition, a 41-page, 57-table supplement, *Historical Statistics of Hawaii, 1778-1962*, was published and distributed without extra charge to persons receiving the regular edition.

2/ A 19-page supplement, *State of Hawaii Census Tract Maps and Directory of Hawaii Map Sources*, was included with each copy of the regular edition, and was not sold separately.

Source: DBED records.

ON-LINE AVAILABILITY OF DATA BOOK TABLES TO PUBLIC

Early in 1988, the Hawaii State Department of Business and Economic Development initiated a pilot program to make Data Book tables and selected other statistical series available to anyone with a personal computer and a modum.

The pilot program incorporates the full text of The State of Hawaii Data Book (including available updates to the current edition) and the data and analyses in the department's most recent Quarterly Statistical & Economic Report. Other publications and data series may be added if there is sufficient demand.

The DBED electronic bulletin board is available free 24 hours a day, seven days a week.

Until now, getting updated Data Book tables was a time-consuming process. Now the almost daily updates are available on-demand and in a format that is more convenient for people who use many of the popular electronic spreadsheets.

The system is easy to use. It is menu-driven and contains numerous "prompts" which guide the user to the data sets. It also has electronic mail features that permit users to leave messages on the system. Since this is a pilot project, user comments and suggestions are solicited.

The bulletin board is maintained on an IBM System 2 microcomputer which is located in the Department's Research and Economic Analysis Division. The system uses the PC Board version 12.1/E3 software. The bulletin board can be accessed at either 300, 1200 or 2400 baud. Anyone wishing to access the system can call (808) 946-5191. Neighbor Island residents can call toll free 1-800-421-3233. A users guide is available from the Department's Information Office (548-4025) or can be retrieved from the system.

For further information about available data or system specifications, users should call the Research and Economic Analysis Division at (808) 548-4355.

INDEX

Subject — Page numbers

Abortions 67, 74

Accidents and fatalities:
  - Aircraft 77
  - Boating or shipping 77, 498
  - Catastrophic, by type 77
  - Deaths and death rates 75, 77, 479
  - Drownings 233
  - Fires 413
  - Hurricanes 172
  - Industrial 353, 354
  - Traffic 77, 479
  - Tsunamis (seismic sea waves) 153

Adoptions 316

Advertising agencies 435

Agreements of sale 568

Agriculture (See also individual products):
  - Characteristics of farmers 507, 512
  - Crops and livestock 511, 513-515, 519-521, 524
  - Employment and payrolls 330, 332, 334-336, 338, 344, 416, 510, 512, 586
  - Farm income 370
  - Farm prices for crops or livestock 516
  - Farms 506, 509-510, 512, 514, 515, 520-523
  - Farms by size 506, 509
  - Fertilizer 526
  - Foreign investment 635, 638-639
  - Irrigation 506, 509, 517
  - Land evaluation ratings 525
  - Land use and acreage 180, 182-184, 506, 509-510, 512, 514-517, 525, 585

Subject	Page numbers
Agriculture -- Continued	
Market supply	508, 514-516, 518-521, 523-524
Occupational injuries and illness	353
Production value	508, 511, 513-515, 520-523
Production volume. See individual products	
Taxes and tax base	283, 288, 289
Visitor-related sales	214
Wages and salaries	344, 586
Water use	154
Aid to families with dependent children	311
Air quality and pollution	156, 160-162
Air transportation:	
Accidents/deaths	77
Aircraft operations	485, 488
Airline characteristics	487-488
Cargo and mail	486, 488, 490-491, 624, 626
Carriers	485-488, 491
Distances between cities	493
Employment and payrolls	488-487
Facilities	487
Fares and flight times	215, 494-495
Fuel consumption	452-453
General aviation	485, 487
Helicopter tours	491
Passengers	192, 486, 488-490, 493
Pilots, flight instructors, and nonpilot airmen	487, 492
Revenues and profits	488
Visitor-related expenditures	212, 214
Aircraft	485, 487, 491, 630
Airports and heliports	484-487
Alcohol use	78, 82, 382
Alcoholic beverages. See Liquor and alcoholic beverages	
Aliens. See Citizenship or Immigration	
Altitudes. See Elevations and altitudes	
Amusements. See Recreation	
Apparel and related products. See Textile and apparel industry	

Subject	Page numbers
Aquaculture	527-528
Area, land and water	35, 140, 142-143
Arizona Memorial, U.S.S.	220, 227
Armed forces:	
Airports and aircraft operations	484-485
Civilian employment and payroll	293, 297, 300-303, 332, 334
Contracts awarded	302
Expenditures	290-291, 303, 359, 361-362
Hotel receipts	604-605
Land use	188, 304
National Guard	300
Retail establishments and sales	604-605
Armed forces personnel and dependents:	
Active duty personnel	13, 40, 48, 297-301, 322, 324, 335
Age and sex	48
Armed forces dependents	13, 40, 48, 297-299
Births to military families	55, 65, 70
Characteristics	40, 45, 48
Components of population change	55
Deaths	55, 307
Ethnic stock	40, 48
Hawaii residents on active duty	297, 307
Households and/or families	48, 298-299
Housing	305
Migration	55, 59-62
Veterans and retired military	305-306
War casualties	307
Arrests	115-118
Arts, performing	223-224
Assessed values. See Taxation	
Assets of top wealthholders	383-385
Astronomy	459
Attendance at cultural attractions, parks, sporting events, and the performing arts	220-224, 227-229, 232, 243, 246
Attorneys. See Lawyers and judges or Legal services	

Subject | Page numbers

Automobiles. See Motor vehicles

Aviation. See Air transportation

Bagasse 455

Bananas 516

Bankruptcies 124

Banks 402-404, 409

Baseball 243-245

Basketball 244-245

Beaches 157, 174, 225, 233, 238

Bibliography 653

Bicycles and bicycling 225-226, 480

Biomass 444

Bird counts 175-176

Births and birth rates 64-65, 67-70
  Armed forces personnel and dependents 55, 65, 70
  Births to non-residents 68
  Births to single women 64, 69
  Characteristics of infants 69-70
  Components of population change 55
  Names, most common 71-72
  Place of birth 44, 48, 68-69

Boats and boating (See also Water transportation) 225-226, 239-240, 452-453, 497-499

Boilers and pressure vessels 454

Books 437

Bowling 245

Boxing 246

Bridges, highway 464

Broadcasting 433-435

Subject — Page numbers

Budgets 398, 400

Buildings. See Construction industry and Housing and housing units

Burials. See Deaths, Disposition of remains

Buses and bus service 466, 469-470, 477, 481-483

Business climate 425

Business enterprises (See also individual types of business and industry):
  Contributions for social insurance programs 366
  Corporate profits 363, 365, 423
  Employment and payrolls 336, 338, 342-345, 414-417, 422
  Employment-size class 345, 414, 417
  Establishments 342-345, 414-419, 421, 430-432
  Failures 427
  Foreign-owned businesses 409, 418, 633-634, 638
  Minority-owned businesses 424
  Sales 419, 421-423
  Small businesses 414
  Starts 426
  Taxes 270-271, 273, 283, 288-289, 366, 420
  Women-owned businesses 425, 507

Business services 609, 611

Cable television 433

Camping and camping sites 225-226, 234

Car rentals. See Motor vehicles

Care homes. See Nursing homes.

Cargo. See Air or Water transportation

Cattle. See Livestock and livestock products.

Cement and concrete industry. See Mining and mineral products

Cemeteries 181

Subject	Page numbers
Census designated places or urban places	20-22, 592-593, 607, 610
Census tracts	26-32
Channels between islands	138
Charities. See Non-profit organizations	
Chemicals and allied products	608
Chickens. See Poultry and poultry products	
Children:	
Adoptions	316
Child abuse	120
Child care	317
Child welfare payments and recipients	311
Cost of raising	400
Household type and relationship	49-50, 52
Poverty status	377
Churches (See also Clergy or Religion)	53, 181, 287, 572
Citizenship	44, 58
Civil service. See Government or County, Federal, or State government	
Clergy	53
Climatic data	164-174
Clothing, accessories, and jewelry. See Textile and apparel industry	
Coal	444
Coastline. See Shoreline	
Coffee	514-516
Collective bargaining	355-356
Commercial buildings, characteristics	562-563, 565, 597
Commercial space, characteristics	603
Commissaries and exchanges	604
Common carriers. See Motor vehicles	

Subject — Page numbers

Communications industry (See also individual industries):
  Books and newspapers, 435-437
  Employment and payrolls, 332-336, 338, 344
  Establishments, 344, 435-437
  Hours and earnings, 344, 347
  Telegraphy, 433, 435

Commuting, 477

Computers, 460

Condominiums, 547, 549, 556
  Conversions, 547
  Foreign investment, 638
  Inventory, 547
  Projects registered, 548
  Sold or for sale and price, 565-566
  Time-share properties and units, 548
  Visitor use, 548, 614

Construction industry:
  Building permits, 541-542, 545-546
  Characteristics, 543-544
  Condominiums, 547-548
  Cost indexes, 546
  Demolitions, 545
  Employment and payrolls, 330, 332-336, 338, 344, 416, 543-544
  Establishments, 344, 416, 543-544
  Government contracts, 361-362, 543
  Hours and earnings, 344, 347
  Housing, 542, 545-547, 558, 567
  Nonresidential building projects, 542, 548, 563
  Occupational injuries and illnesses, 353
  Receipts, 543-544
  Tallest structures, 571
  Taxes and tax base, 283, 542
  Value of construction, 541-544, 546

Consumer price index, 215, 387-394

Conventions, 206

Corporations, 270, 418-423

Correctional facilities. (See also Prisons and prisoners), 130

Subject *Page numbers*

Cost of living. *See* Consumer price index *and* Prices

Cost of living allowance (COLA), Federal employees 399

County governments (*See also* Taxation *or* Public safety):
  Bonded debt 292
  Capital improvements expenditures 275-276, 543
  Debt service 275-276
  Elected officials. *See* Elections and elected officials, County governments.
  Employment and payrolls 293, 332-335, 338, 344-345
  Expenditures 275-276
  Land owned 185-186
  State or Federal support 274-276, 290-291
  Tax collections and other revenues 268-272, 275-276
  Wages and salaries 295, 344-345

Courts 122-128

Craters 143

Credit unions 404

Crime and criminals 113-114, 117
  Arrests 115-118
  Court proceedings 124-128
  Illegal income 373
  Juveniles 118, 130
  Marijuana confiscation 119
  Offenses 113-120
  Parole 132
  Prisoners 130, 132
  Rate 113, 116
  Releases 116
  Residence 116
  Stolen property 120-121, 408
  Victims 116

Crops. *See* Agriculture *or individual products*

Cultural attractions 220-224, 227

Customs District, Honolulu 625-630

Dairy products 578

Dams 153

Data Book printing history 654

Subject — Page numbers

Daylight hours of sunrise and sunset 174

Deaths and death rates (See also Accidents and fatalities) 55, 64, 66, 68
  Age 74
  Armed forces personnel and dependents 55, 66, 307
  Catastrophic mortality 77
  Cause 75-76, 81, 89, 153, 172, 233, 413, 479, 498
  Characteristics 74-75
  Components of population change 55
  Deaths of non-residents 68
  Disposition of remains 78
  Fetal and infant deaths 64, 67, 74
  Fires 413
  Industrial 354
  Life tables 73
  Names, most common 72
  Place of death 68
  Traffic 479

Deeds filed 567

Defense. See Armed forces

Dentists 89

Department stores 594, 596-597

Developers. See Construction industry

Diet. See Nutrition

Diesel fuel 452-453

Disability insurance 271, 311, 313

Disabled persons 79, 311, 313, 352

Diseases 76, 79-81

Disposable personal income 368

Distances:
  Between cities 493
  Great circle 134
  Highways 462

Districts. See "Judicial" districts

Subject — Page numbers

Divorces ... 90-92

Doctors, M.D.'s. See Physicians and surgeons

Dogs ... 243

Drivers licenses ... 474-475

Drug abuse and use ... 82

Drug stores ... 594, 608

Earthquakes ... 151-152

Earnings. See Wages and salaries and individual industries

Eating and drinking places:
  Characteristics ... 598
  Employment and payrolls ... 335, 344, 348, 416
  Foreign investments ... 638
  Sales and expenditures ... 382, 594, 596
  Visitor related ... 208, 214

Economic development ... 275-276

Education:
  Achievement test results ... 103
  Attainment ... 96-97
  Board of Education ... 248
  Days of school ... 102
  Degrees conferred ... 105, 107
  Employment and payroll ... 109, 294, 338
  Enrollment ... 98-102, 104, 107-108
  Enrollment by age ... 95
  Expenditures ... 102, 245, 274-276
  Federal support ... 101, 108, 457
  Foreign investment ... 638
  Graduates ... 48, 98-99, 102
  Higher education institutions ... 104-108, 111, 274, 294, 457-458
  Libraries ... 109-111, 274
  Personal consumption expenditures ... 361-362, 364, 382
  Preprimary schools ... 100-101
  Private elementary and secondary schools ... 98-100, 102
  Public elementary and secondary schools ... 98-100, 102, 274-276, 294
  Real property ... 181
  Schools ... 98-99, 102, 104, 107, 287

Subject — Page numbers

Education -- Continued
  Special Education 100-101
  Sports 244-245
  Teachers 98-99, 356
  University of Hawaii 104-106, 356
  Visitor's educational level 204
  Wages and salaries 102

Elderly (65 years and over) or retired persons (See also Population, Age) 49, 311-315, 324, 400

Elections and elected officials (See also Voters and voting):
  Board of Education 248, 262
  Campaign expenditures 262
  County governments 248, 256, 259, 261-263
  Elected officials 248, 256, 259, 261, 263-265
  Election districts or precincts 248, 259
  Federal government 248, 256, 259, 261-262
  Neighborhood Boards 248, 263
  Office of Hawaiian Affairs 248, 260, 262
  Party of votes cast 255, 259, 261
  State government 248, 256, 259, 261-262, 264-265
  Voter turnout 252-254
  Voters and votes cast 252-261, 263

Electricity:
  Capacity, consumption, production, and rates 447-448, 451
  Consumption by use 443
  Expenditures 445-448
  Generation by source 444
  Price index 390-394
  Revenues 447-448
  Sugar plantations 455

Elevations and altitudes 144-145, 147-150

Elevators, escalators, and similar facilities 570

Employment and labor force (See also individual industries):
  Age 324-325, 330
  Employers 342-345, 416-417
  Employment and payrolls 342-344, 414-417
  Employment-size class 345, 414, 417
  Establishments 414-417, 538

Subject — Page numbers

Employment and labor force -- Continued
  Ethnic origin and race 326
  Export-related 634
  Family characteristics 323
  Family workers, unpaid 336, 338, 510, 512
  Foreign-owned firms 633
  Hours and earnings 342-349, 351
  Industry groups 332-336, 338, 344, 416
  Interstate movement of job-seekers 352
  Jobcount 331-335
  Labor force 48, 322-328, 335-336
  Labor unions and employee associations 354-356
  Large corporations 422-423
  Minimum wage rates 346
  Occupational injuries, deaths, and illnesses 353-354
  Occupations 48, 337, 339-340
  Projections 335
  Residence/place of work 33, 301, 341, 477
  Self-employed workers 332-336, 338, 510, 512
  Sex 322-326, 337, 340, 351
  Strikes or work stoppages 332-334, 356, 586
  Unemployment and unemployed workers 48, 316, 322-330
  Visitor-related 213-214
  Women in labor force 322-324, 337, 351

Endangered and extinct species 177

Energy and power (See also Electricity and Utilities):
  Biomass 444-445
  Boilers and pressure vessels 454
  Consumer price index 390-394
  Consumption 441-444, 447-450, 452-453
  Electric utilities 445-448, 451
  Electricity generation 444, 447-448, 451, 455
  Expenditures 445-446, 451
  Fossil fuels 452-453, 455
  Gas utilities 449-450
  Geothermal energy 441-442, 444
  Heat pumps 456
  Hydroelectric power 441-442, 444
  Solar energy 456
  Sugar mills and other manufacturing industries 455
  Wind 444
  Wood and waste 441-442

Subject — Page numbers

Entertainment. *See* Recreation

Environment. *See* Geographic data *or* Pollution

Establishments. *See* Business enterprise

Ethnic origin and race ... 40-43, 48
  Ancestry ... 43
  Armed forces and dependents ... 40, 48
  Births of mixed race ... 70
  Employment and labor force ... 330
  Geographical location ... 41-42
  Marriages and divorces (interracial) ... 90-92
  Minority-owned businesses ... 424
  Voters ... 252

Excise tax. *See* Taxation

Executions. *See* Prisons and prisoners

Exports. *See* Foreign trade

Failures, industrial and commercial ... 427

Families. *See* Households or families

Farms and farm workers. *See* Agriculture

Federal government (*See also* Armed forces):
  Aid to State or counties ... 101, 108, 273, 275-276, 290-291, 366, 457
  Cost of living allowance (COLA), Federal employees .. 399
  Courts ... 123-124
  Elected officials. *See* Elections and elected officials, Federal government
  Employment and payrolls ... 293, 300-303, 332-335, 338, 344-345, 399
  Expenditures ... 290-291, 302-303, 361-362, 366, 457, 543
  FHA mortgages ... 569
  Land owned or leased ... 185-186, 188, 304
  Postal service ... 429-430, 438
  Tax collections and other revenues ... 268-272, 278-279, 366
  Wages and salaries ... 290-291, 344-345, 370

Feedgrains and other feedstuff ... 503, 518

Subject — Page numbers

Fertility rate 47, 68

Fertilizer and chemicals 526

Finance, insurance, and real estate (See also individual subjects)
  Assets and deposits 403-404
  Employment and payrolls 330, 332-336, 338, 344, 416
  Establishments 344, 402-404, 416, 562
  Financial loan companies 402
  Hours and earnings 344, 347
  Loans outstanding 404
  Occupational injuries and illness 353
  Taxes 270

Firefighters. See Public safety

Fires 412-413, 532

Fishery conservation zone 142

Fishes and fishing 226, 236, 497, 532-537

Flowers and nursery products 514-515, 522-523

Food (See also Agriculture):
  Consumer price index 215, 390-394
  Establishments (See also Eating and drinking places) 594, 597, 608
  Personal consumption expenditures 208, 361-362, 364, 382
  Prices 396-398

Food products, manufacturing industry (See also Sugar and Pineapple)
  Employment and payrolls 330, 332-335, 344, 416, 578-579
  Establishments 344, 416, 578
  Freight traffic 503
  Hours and earnings 344, 347, 578-579
  Value added by manufacturing 578

Food stamps 311

Football 244-245

Foreclosures 568

Subject | Page numbers

Foreign investment in Hawaii 409, 418, 633-639

Foreign language spoken in household 46

Foreign trade 503, 518, 624
  Countries and regions 628-629
  Income from investments 365
  Manufactured exports 634
  Merchandise 365, 625-626, 630
  Services 365
  Shipping weight 500-501, 626, 632
  Value 361-362, 365, 624-632

Foreign-Trade Zone 631-632

Forests and forest products 530-532

Foundations and trusts 317

Freight traffic. See Air and Water transportation

Fruits and nuts (See also individual products) 503, 514-516, 518, 524

Fuel (See also individual types):
  Consumer price index 390-394
  Consumption 441-442, 444, 452-453, 476
  Electricity generation 444, 455
  Expenditures 445-446
  Gasoline stations 453
  Shipments 503
  Sugar plantations 455
  Taxes and tax base 270, 452-453

Garment industry. See Textile and apparel industry

Gas utilities (See also Petroleum):
  Consumer price index 390-394
  Consumption, customers, and use 449-451
  Natural gas 442, 630
  Rates and revenues 449-450

Gasoline:
  Consumption 452-453
  Prices 454
  Taxes and tax base 452-453

Gasoline service stations and garages 453, 594, 596

Subject — Page numbers

Geographic data (See also Census designated places or urban places or Land and land use or Water):
  Altitudes 149
  Area 35, 140-143
  Channels 138
  Counties or islands 34
  Craters 143
  Distances 134, 149
  Earthquakes 151-152
  Elevations 144-145, 147-150
  Inland waters 146-148
  Latitude and longitude 137
  Shoreline 139
  Volcanic eruptions 150

Geothermal energy 441-442, 444

Golfing and golf courses 234-235, 244-246, 722

Government (See also individual governmental units):
  Construction projects 543
  Debt 292
  Employment and payrolls 293-294, 332-336, 338, 344-345, 361-362
  Expenditures 274-276, 290-291, 361-362, 366
  Land owned 185-187, 190, 304
  Tax collections and other revenues 268-270, 272, 279, 366
  Wages and salaries 295, 344-345, 370

Gross state product 360-363, 367

Group quarters. See Population, group quarters

Guava 516, 531

Hansen's disease 81, 89

Harbors 238, 496, 499, 502

Hawaii Housing Authority 190, 557

Hawaii Medical Service Association 411

Hawaii Visitors Bureau 216

Hawaiian Affairs, Office of 248, 260, 262

Subject	Page numbers
Hawaiian Home Lands, Hawaii State Department of	189-190, 287
Health and medical insurance	274, 312, 410-412
Health care (See also Hospitals and health care facilities):	
Consumer price index	390-394
Employment and payrolls	294, 338, 344, 416, 609
Facilities	87, 89, 344, 416, 609
Government expenditures	274-276, 309-310
Hospitals and institutions	83-86, 88-89, 274
Nursing homes	83, 85
Personal consumption expenditures	93, 361-362, 364, 382
Risk factors	78
Wages and salaries	344, 348-349
Health services	609, 611
Heat pumps	456
Heights of persons	93
Highways and streets:	
Bridges and tunnels	464
Fuel consumption	476
Fuel tax	270
Government expenditures	274-276
Miles and mileage	462-463, 465, 476
Parking spaces	465
Signalized intersections	465
Speeds on highways	478
Traffic	475
Vehicle density	465
Historic sites	227-228, 230
Honey	519-521
Hospitals and health care facilities:	
Beds	83-85, 88
Costs	87
Facilities	83-85, 89 287
Insurance	312
Patients admitted	84, 86-89
Hotels:	
Beverage and food sales	616
Condominiums for transient/visitor use	548, 553, 614
Construction	542

Subject — Page numbers

- Hotels -- Continued
  - Employment and payrolls 199, 330, 332-335, 344, 416, 609, 612, 619
  - Establishments and properties 344, 416, 609-612, 614
  - Foreign investment 634, 638-639
  - Hours and earnings 344, 347, 351
  - Occupancy rates 613, 616-617
  - Projections 335
  - Receipts 604-605, 610-612
  - Room rates 215, 616, 618
  - Rooms 613-614, 619
  - Seating capacity 572
  - Taxes and tax base 283, 288-289, 615
  - Visitor-related expenditures 208, 214

- Households or families 47, 49-51, 380
  - Armed forces personnel and dependents 48, 298-299
  - Budgets and expenditures 382, 398, 400
  - Characteristics (Household or family type) 49-50, 52, 336, 338
  - Geographical location 23, 47, 51
  - Income 48, 271, 373-378, 554
  - Mobility of household heads 560-561
  - Persons in households or families 51
  - Persons per household or family 47-51, 554-556
  - Poverty level 377-380
  - Tax burden 271, 382
  - Telephone households 431-432
  - Television households 434-435
  - Vehicles available 470
  - Visitor-related income 213-214

- Housing and housing units (See also Condominiums and Households):
  - Armed forces 305
  - Building permits 546
  - Buyer characteristics 569
  - Characteristics 180, 554-556, 558, 567
  - Condominiums 547-549
  - Construction 542, 545, 547, 558, 567
  - Consumer price index 390-394
  - Cooperatives 549
  - County 551-553
  - Demolitions 545
  - Energy use 446
  - Government 274, 305, 550, 552, 557
  - Land ownership 287, 550, 552

Subject — Page numbers

Housing and housing units -- Continued
  Mortgage loans 382, 554, 568
  Occupied units 553-556
  Personal consumption expenditures 361-362, 364, 382, 554
  Persons per unit 554-556
  Prices of homes 563, 567
  Real property tax 287-289
  Solar heated 456
  Sold or for sale 564-565, 567
  Tenure (owner- or renter-occupied) 550, 554-556
  Time-sharing 548
  Total 550-554, 558
  Turnover 554, 560-561
  Vacancies 554-556, 558-559
  Value (owner-occupied) 546, 554-556
  Visitor use 548, 553

Humidity 166-169

Hunting and hunting licenses 225-226, 236-237

Hurricanes and cyclones 172

Hydroelectric power 441-442, 444

Illiteracy 97

Illness (See also Deaths, Cause and Diseases):
  Acute and chronic conditions 79-81
  Occupational 353
  Restricted activity days 80

Immigration:
  Aliens 44, 57
  Countries 44-45, 57
  Refugees 57
  Total 56-57, 59-60

Imports. See Foreign trade

Income:
  Adjusted gross income for tax purposes 277-282
  Corporations 422-423
  Disposable personal 368
  Dividends 279, 370
  Family or household 48, 271, 373-378, 554
  Farm 370
  Gross state product 360-363
  Illegal 373
  Interest 279, 363, 370, 405

Subject	Page numbers
Income -- Continued	
Labor	370
Major industries	359
Male and female	374, 377
Mean	375
Median	48, 282, 374-375, 377-378, 554
Nonfarm	370
Per capita	368-369, 372, 378
Percent of U.S. average	368-369
Personal	48, 368-372
Poverty	377-381
Projections	367
Proprietor's	363, 370
Rental	363, 370
Taxation	279, 382
Unrelated individuals	48, 374-375, 377
Unreported	373
Visitor	204-205
Visitor-related	213-214
Wages and salaries	342-349, 351, 363, 370
Industrial loan companies	402-403
Industrial parks and areas	563, 583
Industrial safety	353-354
Injuries	479
Institutional population. See Population, Institutional	
Insurance (See also Finance, insurance, and real estate):	
By class	408
Establishments	406-407, 409
Flow of funds	406-408
Health and medical insurance	312, 408, 410-411
Investments in Hawaii	406, 409
Life insurance	407-408
Taxes and tax base	270, 283, 405
Interstate trade	503, 518, 624
Investments:	
Foreign investments	365, 409, 418, 633-639
Insurance companies	406, 409
Total	361-362, 365

Subject	Page numbers
Island Care Health Plan	411
Jobcounts. *See* Employment and labor force	
"Judicial" districts	19
Judiciary. *See* Courts	
Kaiser Foundation Health Plan	411
Labor. *See* Employment and labor force	
Labor unions. *See* Unions	
Lakes	147
Land and land use:	
Agricultural productivity	525
Area:	
Counties and islands	35, 140, 143, 182
State	140
Urban and rural	35
Farms	506, 509, 522
Industrial parks	583
Land use districts	183-184
Ownership:	
Armed Forces	304
Foreign ownership	633, 635, 639
Government	179, 185-190, 304
Hawaiian Home Lands, Hawaii State Department of	189-190, 287
Leased/owned	188, 190, 549, 551-552
Private/fee simple	185-187, 551-552
Parcels	181
Real property assessment	284-289
Sugar industry	517, 585
Use	179-182, 188-190, 530
Value of land transfers	567-568
Language spoken or understood	46
Largest corporations	419, 421-422
Law enforcement:	
Arrests	115-118
Courts	123-128
Criminal justice system	123-128, 132
Lawyers and judges	123

Subject — Page numbers

Legal services 611

Legislature, State (See also Elections and elected officials, State government) 248, 264-266

Libraries 109-111

Life expectancy 73

Liquified petroleum gas 452-453

Liquor and alcoholic beverages 82, 270, 382, 503, 599, 608

Literacy. See Illiteracy

Litter 158

Livestock and livestock products 511, 513, 519-521, 524

Lumber 503

Macadamia nuts 514-516

Major retail centers 600-602

Manufacturing industry (See also individual industries)
  Capital expenditures 575-577, 580
  Cost of materials 575-577, 580
  Employment and payrolls 330, 332-336, 338, 344, 416, 575-579
  Establishments 344, 575-579
  Export-related employment and shipments 634
  Foreign investment 638
  Hours and earnings 344, 347, 575-579
  Industrial parks 583
  Occupational injuries and illness 353
  Plant capacity 581
  Pollution abatement 156
  Sugar 585
  Taxes and tax base 283, 582
  Value added and value of shipments 575-579, 581
  Visitor-related sales 214

Maps:
  Census tract 26-28
  District 6-7
  Oahu Neighborhood Statistics Program 23-24

Subject	Page numbers
Marathon running	242
Marijuana	119
Marital status of population. See Population, Marital status	
Marriages	90-92
Mass transit	481-483
Measures and weights, table	9-10
Medicaid and Medicare	312
Medical care. See Health care	
Medical payments. See Health care	
Mental health facilities	87-88
Merchandise line sales. See Retail trade	
Metal products	503
Migration. See Population	
Military. See Armed forces or Armed forces personnel and dependents	
Milk. See Dairy products	
Millionaires and wealthholders	383-385
Minimum wage rates	346
Mining and mineral products	336, 344, 353, 416, 538-539, 630
Minority-owned businesses	424
Molasses	585, 587
Moorage	238
Morbidity. See Deaths and death rates	
Mortgages	404, 409, 568-569
Motion pictures	620-621

Subject — Page numbers

- Motor vehicles:
  - Accidents/deaths 77, 479
  - Available to occupied housing units 470
  - Characteristics 470-471
  - Common carriers 480
  - Commuting characteristics 477
  - Dealers 594, 596
  - Density per mile or per 1,000 persons 465
  - Drivers licenses 474-475
  - Drunk drivers 78
  - Freight traffic 503
  - Fuel consumption 476
  - Insurance 408
  - New vehicles and sales 471-473, 630
  - Registrations 466-470
  - Rental and leasing establishments 483
  - Seatbelt use 78
  - Speeds 478
  - Taxes 270-271
  - Theft 114, 120-121
  - Traffic 475
  - Vehicle miles 476
  - Weights 470
- Motorcycles and motor scooters 466, 469-470
- Mountains, altitudes, and elevations 144
- Multiple Listing Service listings 564-566
- Museums and art galleries 220-222
- Names, most common 71-72
- National Guard 300
- Natural disasters 150-153, 172
- Naturalization. See Citizenship
- Neighborhood Boards 23, 33, 248, 263
- Newspapers and periodicals 435-438
- Noise levels and noise pollution 163
- Non-profit organizations 317-318
- Nurses 89, 348-349

Subject	Page numbers
Nursing homes	78, 83
Nutrition	78
Occupational injuries, deaths, and illnesses	353
Occupations	337, 339-340, 348-349, 351
Office buildings	562-563
Oil, fuel. See Fuel	
Old-age, survivors, disability, and health insurance	311, 313-315
Papayas	516
Parking spaces	465
Parks	225, 227-229, 231
Partnerships	418, 420, 543-544, 591
Passengers or visitor arrivals. See Tourism	194, 488-490, 493, 500-502
Passports issued	216
Patents issued	458
Pay rates. See Wages and salaries	
Payrolls. See Employment and labor force or individual industries	
Performing arts	223-224
Periodicals. See Newspapers and periodicals	
Personal consumption expenditures	93, 208, 361-362, 364, 382
Personal income. See Income, personal	
Pesticides and herbicides	526
Petroleum and petroleum products (See also individual products):	
Consumption	441-442, 444, 452-453

Subject — Page numbers

- Petroleum and petroleum products -- Continued
  - Electricity generation ... 444
  - Expenditures ... 445
  - Liquified petroleum gas ... 452
  - Shipments ... 503, 630
  - Taxes ... 270, 452-453
  - Wholesale trade ... 608
- Pets ... 246
- Pharmacists ... 89
- Physicians and surgeons ... 89
- Pilots, flight instructors, and nonpilot airmen ... 487
- Pineapple industry:
  - Acreage ... 514-515
  - Employment and payrolls ... 332-334, 344, 578
  - Establishments and farms ... 344, 514-515, 578, 584
  - Fresh pineapple industry ... 511, 513-515, 587
  - Hours and earnings ... 344
  - Processed pineapple industry ... 283, 578, 581, 583-584, 587
  - Production value ... 359, 511, 513-515, 578, 587
  - Production volume ... 514-515, 583
  - Taxes and tax base ... 283, 582
- Place of work. See Employment and labor force
- Police department. See Public safety
- Political parties (See also Elections or Voters) ... 255, 259, 261-265
- Pollution (water, air, and noise) ... 156-157, 160-163
- Population (See also Vital statistics)
  - Age ... 37-39, 47-49, 314
  - Aliens (See also Citizenship) ... 44, 56-58
  - Ancestry ... 43
  - Armed forces personnel and dependents. See Armed forces personnel and dependents
  - Centers ... 34
  - Characteristics of intended residents ... 56, 59-60
  - Citizenship ... 44, 58
  - Civilian ... 13, 40, 48
  - Components of change ... 55
  - De facto ... 14, 17-18
  - Density ... 18

Subject — Page numbers

- Population -- Continued
  - Disabled persons 79
  - Elderly (65 years and over) or retired persons (See also Population, Age) 49, 314
  - Ethnic origin and race (See also Ethnic origin and race) 44-43, 48
  - Foreign born 44-45, 48, 57
  - Geographical location:
    - Census designated places 20
    - Census tracts 29-32
    - Congressional districts 34
    - Counties or islands 15-19, 35, 38, 41-42, 47, 49, 299
    - "Judicial" districts 19
    - Neighborhood 33
    - Urban and rural 35
  - Group quarters 47, 49, 299
  - Historical trend 12
  - Households and/or families. See Households or families
  - Institutional 49, 88
  - Language spoken 46
  - Marital status 47-48, 52, 54
  - Migration 48, 55-62, 193-194, 560-561
  - Military status (See also Armed forces personnel and dependents) 13, 40, 45, 48, 59-60, 297-299, 301
  - Millionaires and wealthholders 383-385
  - Mobility. See Population, Residence, or Population, Migration
  - Nativity 44-45, 48
  - Per occupied housing units 48-49
  - Poverty status population 377-380
  - Projections 36, 39
  - Ranking of Honolulu 22
  - Residence:
    - Five years earlier 48
    - Length of residence 45
    - One year earlier 58, 560-561
  - Resident 12-16, 18-20, 23, 29, 32, 37, 47
  - Residents absent 14, 194, 217
  - Sex 37-39, 47, 49
  - Sex ratios 48
  - Spanish origin 42, 48
  - Unrelated individuals 48-49, 380
  - Visitors present (Average visitor census) 14, 33, 195, 197, 199
  - Voting-age population 249-252

Subject — Page numbers

Postal service 429-430, 438

Poultry and poultry products 519-521, 524

Poverty guidelines 381

Poverty income and status. See Income, poverty

Power. See Energy and power

Prawns 527-528

Prices and rates:
  Commercial space 563, 565, 603
  Comparative living costs 396-400
  Construction cost indexes 546
  Consumer price index 215, 387-392
    Weights 394
  Electricity rates 447-448, 451
  Food 396-398, 598
  Gas utility rates 449-450
  Gasoline 454
  Homes 554, 563-567, 569
  Postage and telephone 438-439
  Sugar, raw 586
  Transportation 483
  Visitor industry 210, 215, 616, 618

Printing and publishing industries (See also individual classes) 332-334, 435-437, 578-579

Prisons and prisoners 122, 130-132

Projections 36, 39, 199, 335, 367

Property tax. See Taxation

Proprietorships 420, 543-544, 591

Psychiatric facilities. See Mental health facilities

Public assistance (See also individual programs) 274-276, 309-311

Public safety:
  Expenditures 122, 274-276
  Fire protection 274-276
  Police protection 121-122, 274-276

Subject — Page numbers

Quality of life index rankings 319-320

Race. See Ethnic origin and race or Population

Radio stations 434-435

Railroads 481

Rainfall 164-171

Rankings:
  Agriculture 650
  Banking 648
  Business enterprise 425, 648
  Communications 648
  Construction 651
  Courts 642
  Domestic trade 652
  Earnings 346, 646
  Education 642
  Elections 644
  Employment 425, 646
  Energy 649
  Environment 643
  Expenditures 398, 400, 647
  Fisheries 650
  Foreign commerce 652
  Forest 650
  Geography 643
  Government 645
  Health 425, 641
  Housing 563, 651
  Human services 646
  Income 346, 369, 425, 647
  Insurance 648
  Interstate commerce 652
  Labor force 646
  Land 643
  Law enforcement 642
  Manufactures 651
  National defense 645
  Population 641
  Prices 397, 647
  Prisons 642
  Recreation 207, 644
  Science 649
  Services 652
  Social insurance 646
  Tourism 193, 207, 644

Subject — Page numbers

Rankings -- Continued
  - Transportation 486, 493, 649
  - Vital statistics 641
  - Wealth 647

Real estate business (See also Finance, insurance and real estate) 562, 638-639

Real property. See Housing and Land and land use

Real property taxes. See Taxation

Recreation (See also individual activities):
  - Attendance or visits 220-224, 226-229, 232-233, 243-246
  - Beaches 233
  - Consumer price index 390-394
  - Cultural attractions and the performing arts 223-224, 227
  - Facilities and land 220-222, 225, 227-229, 231, 234-235, 237-238, 497
  - Government expenditures 274-276
  - Parks 225, 227-229, 234
  - Participation 226, 239, 242
  - Personal consumption expenditures 208, 361-362, 364, 382
  - Residents/visitors 226
  - Sports 225-226, 234-236, 238-246

Refugees. See Immigration

Refuse, Oahu 159

Religion (See also Churches or Clergy) 53, 92, 361-362, 364

Rent. See Housing and housing units

Rental tax base 615

Research and development expenditures 457-458, 638

Reservoirs 147

Restaurants. See Eating and drinking places

Subject — Page numbers

- Retail trade (See also individual industries):
  - Armed forces retail establishments 604-605
  - Department stores 594, 596-597
  - Employment and payrolls 332-334, 336, 338, 344, 416, 591
  - Establishments 344, 416, 589, 591-595, 597, 601
  - Floor space and building area 562, 597, 600, 603
  - Foreign investment 638
  - Hours and earnings 344, 347
  - Industries and merchandise line 594, 596
  - Merchandise line sales 595
  - Occupational injuries and illness 353
  - Sales 208, 589, 591-597, 601-602, 605
  - Shopping centers 600-602
  - Taxes and tax base 283, 590, 605
  - Vacancy rates 562, 603
  - Visitor-related sales 214

- Retirement system 274-275, 293, 306, 313, 315

- Rivers 146

- Salaries. See Wages and salaries and individual industries

- Savings and loan associations 402-404

- Schools. See Education

- Seating capacities 572

- Services industries (See also individual industries):
  - Employment and payrolls 330, 332-336, 338, 344, 416, 609, 620-621
  - Establishments 245, 344, 416, 589, 609-611, 620
  - Hours and earnings 344
  - Industries and kind of business 611, 619
  - Occupational injuries and illness 353
  - Receipts 208, 245, 589, 609-611, 620
  - Taxes and tax base 283, 590, 621
  - Visitor-related sales 214

- Sewage and sewage treatment plants 159

Subject — Page numbers

Ships and shipping (*See also* Water transportation) 498-502

Shopping centers 600-602

Shoreline 139, 149, 225, 238, 536

Social insurance. *See individual programs*

Social Security 271, 313-315

Social service organizations 318

Social welfare programs. *See* Welfare services

Solar energy 456

Sports. *See* Recreation, sports

Stadiums 572

State government (*See also* Elections and elected officials *or* Public safety *or* Taxation):
  Aid to counties 274-276
  Bonded debt 292
  Capital improvements expenditures 274, 543
  Courts 123, 125-128
  Debt service 274
  Elected officials. 248, 265
  Employees' retirement system 276, 315
  Employment and payrolls 293-294, 330, 332-335, 338, 344-345
  Expenditures 102, 274, 361-362
  Federal support 101, 108, 273, 290-291, 457
  General fund 273
  Land owned 185-186, 190
  Legislature 248, 264-266
  Special funds 273
  Tax collections and other revenues 268-273, 280-281, 283
  Wages and salaries 102, 295, 344-345, 370

Stockholdings of Hawaii residents 405

Streams 146, 179

Streets. *See* Highways and streets

Strikes and lockouts (work stoppages) 332-334, 356, 586

Subject — Page numbers

Structures (tallest) 571

Structures (year built) 180

Sugar industry:
- Acreage 514-515, 517, 585
- Agricultural sugar industry 511, 513-515, 585, 587
- Employment and payrolls 332-334, 344, 578, 586
- Establishments and farms 344, 514-515, 578, 584
- Freight traffic 503
- Government support payments and price 587
- Hours and earnings 344, 586
- Plantation energy 455
- Price 586
- Processed sugar industry 578, 581, 584-585, 587
- Production value 359, 511, 513-515, 578, 587
- Production volume 514-515, 585
- Strikes 586
- Taxes and tax base 283, 582

Sunshine 166-169, 174

Surf and surfing 173, 226, 238

Swimming or sunbathing 225-226, 241

Symphony Orchestra, Honolulu 223

Taro 514-516

Taxation (See also individual sources):
- Adjusted gross income on tax returns 277-282
- Corporate income tax 270, 273, 363, 366
- County taxes 268-272, 275-276, 284-289, 363
- Employment taxes 271, 273
- Evasion 373
- Federal taxes 268-272, 277-279, 363, 366
- General excise and use tax 270-271, 273, 283, 508, 542, 582, 590, 615
- Generated by motion picture production 621
- Individual income tax 270-271, 273, 277-281, 366

Subject — Page numbers

Taxation -- Continued
  Liquid fuel tax 452-453
  Liquor and tobacco tax 270, 599
  Per capita/percent of personal income 269, 272
  Real property tax 181, 270-271, 275-276, 284-289
  State taxes 268-273, 280-283, 363
  Tax burden 269, 271-272, 382
  Tax credits 456
  Tax returns filed 277-281
  Total 268, 270, 366
  Visitor-generated revenues 213

Taxicabs 477, 480

Teachers. See Education

Telegraph service 433, 435

Telephones and telephone service 431-432, 435, 439

Telescopes 459

Television program production 621

Televisions and television stations 433-435

Temperature, climatic 164-170

Temperature, water 173-174

Tennis and tennis courts 225-226, 234

Textile and apparel industry 208, 332-334, 361, 364, 416, 578-579, 594, 596, 608, 630

Theaters and theater groups 223-224, 283, 572, 590, 620

Time differences 136

Time-share properties and units 548

Tobacco and tobacco products 78, 270, 382, 599

Tour bus operations 480

Subject — Page numbers

Tourism:
  - Attractions, 220, 232
  - Average visitor census, 14, 33, 195, 197, 199
  - Characteristics of visitors, 194, 198, 200-205, 209
  - Conventions, 206
  - Crime victims, 116
  - Economic activity generated, 199, 212-214
  - Expenditures, 199, 207-208, 210-214, 365
    - Japanese/non-Japanese, 207-210
    - Per visitor day, 207-209
    - Total, 359, 361-362, 364
  - Hawaii residents, 194, 217-219, 364-365
  - Origin of visitors, 196, 198, 200, 209
  - Passenger or visitor arrivals, 192-197
    - Eastbound or Northbound, 192, 196
    - Westbound, 192, 194-197
  - Prices, 215
  - Projections, 199
  - Promotion, 216
  - Ranking as vacation destination, 204, 207
  - Time-share projects, 548
  - Travel agencies, 619
  - Visitor days, 196, 202
  - Visitor density, 33
  - Visitor parties, 194, 203
  - Waikiki, 33, 341, 548, 614

Trade (business) (*See also* Interstate trade, Foreign trade, Retail trade, *or* Wholesale trade), 332-336, 347

Traffic, 475

Traffic accidents, 479

Traffic signals, 465

Trailers, 466, 469-470

Transit, mass, 481-483

Transportation (*See also individual modes*):
  - Commuting characteristics, 477
  - Consumer Price Index, 390-394
  - Employment and payrolls, 330, 332-336, 338, 344, 416, 488
  - Energy consumption, 443, 446
  - Establishments, 344, 416, 483, 486, 488, 491
  - Hours and earnings, 344, 348-349

Subject — Page numbers

Transportation -- Continued
  Occupational injuries and illness 353
  Personal consumption expenditures 208, 361-362, 364, 382
  Visitor-related 214

Travel. See Tourism

Travel agencies and tour operators 204, 619

Travel by Hawaii residents 194, 216-219, 361-362, 364-365

Trees (See also Forests) 176, 531

Triathalon races 241-242

Trucks 466, 469-473

Trust companies 402-403

Trusts and foundations 317

Tsunamis (seismic sea waves) 153

Tunnels, highway 464

Undocumented vessels 497

Unemployment 48, 322-330
  Characteristics 48, 322-326, 330
  Total 327-329

Unemployment insurance 271, 316

Unions 354-356

United Way revenues and outlays 318

University of Hawaii. See Education

Unrelated individuals. See Population, unrelated individuals

Urban development 274-276

Urban places (See also Census designated places):
  Retail trade 592-593
  Services industry 610

Subject — Page numbers

Urban places -- Continued
  Wholesale trade 607

Utilities (*See also* Electricity *or* Gas utilities):
  Consumption 443, 447-451
  Customers 155, 447-451
  Employment and payrolls 332-336, 338, 344, 416
  Establishments 344, 416
  Expenditures 446
  Hours and earnings 344, 347
  Occupational injuries and illness 353
  Rates 447-451
  Revenues 447-450
  State expenditures 274
  Taxes 270
  Water consumption 155

Vacancy rates. *See* Housing and housing units

Vacation (*See also* Tourism *and* Travel by Hawaii residents):
  Destination ranking 207
  Price index 215

VCR sales 603

Vegetables and melons 503, 514-516, 518, 524

Veterans and retired military 305-306

Video. *See* Televisions and television stations *or* Television program production

Visitors and visitor industry. *See* Tourism

Vital statistics (*See also* Births *and* Deaths):
  Heights and weights of persons 93
  Life tables 73
  Marriages and divorces 90-92
  Morbidity 79-81

Volcanic eruptions 150

Volleyball 244

Subject ... Page numbers

Voters and voting (See also Elections and elected officials):
  - Characteristics of voters ... 250-255, 258, 260
  - Persons of voting age ... 249-250, 252, 258
  - Voter registration ... 252-254, 258, 260
  - Voter turnout ... 249, 252-254, 260, 263
  - Votes cast ... 253-261, 263

Wages and salaries. See also individual industries ... 342-351, 363

War casualties ... 307

Water (See also Geographic data):
  - Area, inland water ... 140, 179
  - Quality and pollution ... 156-157
  - Recreation ... 173, 225-226, 233, 236, 238, 497
  - Safety ... 233
  - Temperature ... 173-174
  - Use and consumption ... 154-155

Water transportation:
  - Accidents ... 77
  - Boat and ship registration ... 497-498
  - Cargo and freight ... 500-503, 624, 626
  - Fuel consumption ... 452-453
  - Harbors ... 496
  - Moorages and lanes ... 225, 238
  - Passengers ... 500-502
  - Ship arrivals ... 499-500

Waterfalls ... 148

Wealth of top wealthholders ... 383-385

Weather ... 164-174

Weights and measures, table ... 9-10

Weights of persons ... 93

Welfare services (See also individual programs):
  - Expenditures and funds source ... 274-276, 310, 361-362, 364, 382
  - Payments and recipients ... 309-311

Subject — Page numbers

Wholesale trade (See also individual industries):
  Employment and payrolls 330, 332-334, 338, 344, 416, 606
  Establishments 344, 416, 589, 606-608
  Hours and earnings 344, 347
  Industries and merchandise lines 606, 608
  Occupational injuries and illness 353
  Sales 589, 606-608
  Taxes and tax base 283, 590
  Visitor-related sales 214

Wildlife 237

Wind 166-170, 172-173, 444

Women-owned businesses 425

Work disability 353

Work stoppages. See Strikes and lockouts

Workers' compensation program 271, 354

Yacht racing 239-240

Zoos 232